# Engineering Report for P-3/UWB Flight Portage, Maine 27-28 June 1995

John A. Tofil
Research Scientist
Signal Processing and Software Department
Environmental Research Institute of Michigan

19990920 034



P.O. Box 134001 Ann Arbor, MI 48113-4001

# **Table of Contents**

Introduction

Results

Pass Summaries

Mission Summaries

Pre-pass Data Sheets

Post-pass Data Sheets

Appendix (available upon request)

# Introduction

This report is written as an aid to users of the SAR data collected by the P-3/SAR on 27-28 June 1995. The data set generated consists of:

HDDT #E1439 HDDT #E1440 HDDT #E1441 HDDT #E1442 Mission Plan disk, data, etc. Navigation disks Post Pass disks Post Pass Summary Sheets

The report consists of a summary of each pass with crew comments included. Users of the data should review the pass summaries to be alerted for anomalies that may have occurred during the collection or noted by processing or analysis people. The appendix contains plots of critical parameters as a function of time.

This information is provided so that users can examine, in some detail the exact time and magnitude of observed anomalies. In addition users can go back to this data to determine if there is a correlation between "funnies" observed during processing and the engineering data. For example, if there was a blank strip in the image it might correlate with the transmitter power plot showing that the transmitter was off during that time.

All of the data shown in the plots is also recorded on the HDDT's in the Aux. data block and could be reproduced by the user. These plots are included in the appendix as a convenience for users of the data. The appendix is available upon request and thus is not included with this set of data.

# Results

This, the third flight of the deployment, went about as well as the previous two. Navigational accuracy over the target was fair, with many passes having a GPS cross-track error of less than .1 nautical mile (nm), and some passes having GPS cross-track errors in excess of .3 nm. Although the Navigator of the aircraft would perform a position update on the LTN-51 INS when excessive cross-track errors were observed, the INS did not always drive the GPS cross-track error to zero. Five passes were noted as "bad" due to cross-track errors in excess of .15 nm. Two of those bad passes were repeated, with one repeat pass a success. The other three passes did not have repeat attempts. The UWB Transmitter performed as well as it did on the other two flights, with occasional computer-to-tranmitter communications problems, but no actual tranmitter output power faults on this flight.

The target site was named the Illustrative Example (IE). The sensor flew by the target site at various aspect and depression angles. Two XLC mode passes were flown, and only the Low 509 MHz mode of the UWB system was used. This mode was run with two transmit waveform notches:

243.0 MHz center frequency, 10 dB depth 255.4 MHz center frequency, 10 dB depth

### **Problems Noted**

- C-band Transmitter output power questionable Passes 3 and 4-5
- X-band RMS video level low Passes 3 and 4-5
- UWB RF drive manual attenuator not reset to 0 1st 30 seconds Pass 6
- UWB Transmitter to Control Computer communications problem Pass 11
- High RFI noted by radar crew Pass 25-26

# **Pass Summaries**

UWB Portage, Maine Day #3 27-28 June 1995

# Pass 1 Line 2

XLC synthetic target.

# Pass 2 Line 7

UWB low-band, pre-TWT synthetic target.

### Pass 3 Line 2

XLC mode. Target: IE + 0 degree aspect angle. This was the first of two XLC mode training passes at 13,500 ft. altitude. The X-band RMS video level on this pass appears low (ranging from 4% to 8% RMS). This could have been caused by the receive attenuator being set too high (20 dB). The C-band transmitter seems to have had some type of output power problem during the first few seconds of the pass, then appeared to operate correctly for the remainder of the pass. This looks like it was basically a good pass.

# Pass 4-5 Line 4

XLC mode. Target: IE + 180 degree aspect angle. This was the second of the two training passes. The C-band transmitter again seemed to have some type of problem. RMS video level very low on the X and C-band channels, although receiver attenuation was reduced on the X-band channel from the previous pass. Both X and L-band transmitters worked well, and navigation was otherwise good.

# Pass 6 Line 7

UWB Lo-509. Target: IE + 0 degree aspect angle. It appears that an RF drive manual attenuator was not reset after the Pass 2 Synthetic target was run, and output power of the UWB transmitter was lower than usual for the first 30 seconds of the pass. Then, the transmitter was shut down, the manual attenuator reset, and the transmitter powered back up. This operation took less than 10 seconds. The transmitter operated then for the remainder of the pass (about 104 seconds) at full output power. Navigation was excellent, below .02 nm for most of the pass.

# Pass 7 Line 5

UWB Lo-509. Target: IE + 180 degree aspect angle. Good pass, with the UWB Transmitter performing without faults and cross-track error below .1 nm throughout pass.

# Pass 8 Line 9

UWB Lo-509. Target: IE + 270 degree aspect angle. Good pass, with the UWB Transmitter performing without faults and cross-track error between .1 and .13 nm throughout the pass.

# Pass 9 Line 11

UWB Lo-509. Target: IE + 90 degree aspect angle. Good pass, with the UWB Transmitter performing without faults and cross-track error below .15 nm for most of the pass.

### Pass 10 Line 13

UWB Lo-509. Target: Calibration Array, Empty Cedar Swamp, Site 5. Bad pass, due to cross-track errors in excess of .15 nm throughout pass (from .15 to .2 nm during pass). A priority 1 pass which was not repeated during the flight.

# Pass 11 Line 15

UWB Lo-509. Target: IE + 180 degree aspect angle. First pass at 10,000 ft. was a good one. Although the P Band Power plot shows the UWB transmitter had a problem at the start map point, the radar crew noted the problem was with the Control Computer to transmitter communications (i.e. the transmitter had not faulted) and did not attempt to reset the transmitter. Navigation was good, with a beginning cross-track error of 0 and an ending cross-track error of .14 nm.

# Pass 12 Line 17

UWB Lo-509. Target: IE + 0 degree aspect angle. Good pass, with the UWB Transmitter performing without faults and cross-track error below .05 nm throughout pass.

# Pass 13 Line 19

UWB Lo-509. Target: IE + 270 degree aspect angle. A fair pass due to cross-track errors between .3 nm and .15 nm during the first 25% of the pass. Cross-track error continued to decrease throughout the pass, to end at 0. No UWB transmitter faults.

### Pass 14 Line 21

UWB Lo-509. Target: IE + 90 degree aspect angle. GPS cross-track error was .19 nm at the start of this pass, then decreased very rapidy so that, about 20 seconds into the pass, cross-track error was less than .15 nm (which continued to decrease throughout the pass to end up at .11 nm at end map). UWB transmitter performed without fault. Good pass.

# Pass 15 Line 23

UWB Lo-509. Target: Calibration Array, Empty Cedar Swamp, Site 5. A fair pass, based on GPS cross-track error being in excess of .15 nm for about 75% of the pass. Cross-track error started out at .13 nm and increased steadily throughout the pass to end at .22 nm. UWB transmitter did not fault during the pass.

# Pass 16 Line 25

UWB Lo-509. Target: IE + 30 degree aspect angle. It appears that the LTN-51 INS was updated after start map on this pass, but even that was not good enough to correct a GPS cross-track error of .3 nm (only dropped to .2 nm after update). Bad pass, which was repeated as pass 18.

# Pass 17 Line 27

UWB Lo-509. Target: IE + 210 degree aspect angle. Good pass, with the UWB Transmitter performing without faults and cross-track error between .04 nm and .08 nm throughout pass.

# Pass 18 Line 25

UWB Lo-509. Target: Calibration Array, Empty Cedar Swamp, Site 5. Repeat of pass 16, this time was a good one, with the UWB transmitter performing without faults and the GPS cross-track error below .13 nm for most of the pass.

# Pass 19 Line 29

UWB Lo-509. Target: IE + 120 degree aspect angle. Good pass, with the UWB Transmitter performing without faults and cross-track error between .07 nm and .05 nm throughout pass.

# Pass 20 Line 31

UWB Lo-509. Target: IE + 300 degree aspect angle. Bad pass, due to GPS cross-track error between .23 nm (start) and .15 nm (end) throughout pass. This pass was repeated as pass 23.

# Pass 21 Line 33

UWB Lo-509. Target: IE + 60 degree aspect angle. Good pass, with the UWB transmitter performing without faults and the GPS cross-track error below .13 nm for most of the pass. The INS appears to have been updated sometime after start map.

# Pass 22 Line 35

UWB Lo-509. Target: IE + 240 degree aspect angle. It appears that the LTN-51 INS was updated after start map on this pass, but even that was not good enough to correct a GPS cross-track error of .3 nm (only dropped to .2 nm after update). Bad pass, which was not repeated.

# Pass 23 Line 31

UWB Lo-509. Target: IE + 300 degree aspect angle. Repeat of pass 20. Bad pass, due to GPS cross-track error between .15 nm (start) and .3 nm (end) throughout pass. Pass was not repeated again.

### Pass 24 Line 41

UWB Lo-509. Target: IE + 300 degree aspect angle. First pass at 6000 ft altitude, it was a bad pass due to GPS cross-track error between .19 nm and .25 nm during pass. The radar crew noted that there was "no time to repeat" the pass.

# Pass 25-26 Line 43

UWB Lo-509. Target: IE + 0 degree aspect angle. Good pass, with the UWB transmitter performing without faults and the GPS cross-track error between .02 nm and .06 nm throughout the pass. The radar crew noted "large interference on this pass", refering to RFI observed on an analog oscilloscope.

# Pass 27 Line 45

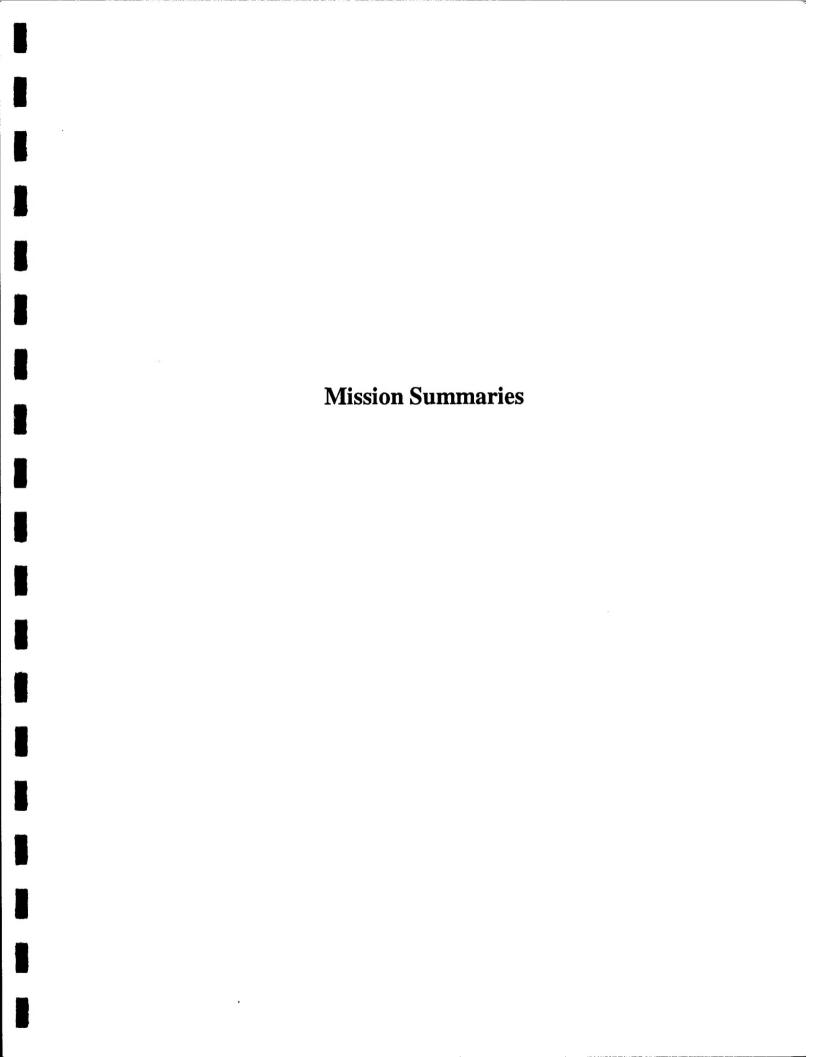
UWB Lo-509. Target: IE + 270 degree aspect angle. Good pass, with the UWB transmitter performing without faults and the GPS cross-track error between .03 nm and .09 nm throughout the pass.

# Pass 28 Line 47

UWB Lo-509. Target: IE + 90 degree aspect angle. Good pass, with the UWB transmitter performing without faults and the GPS cross-track error between .1 nm and .04 nm throughout the pass.

# Pass 29 Line 49

UWB Lo-509. Target: Calibration Array, Empty Cedar Swamp, Site 5. Bad pass due to GPS cross-track error between .16 nm and .23 nm during pass. This was the last pass of the flight.



Differential GPS Navigation Summary for Portage, ME June 27, 1995 Xtk. and Alt. Error (feet)

	Alt. Mean	Alt. St. Dev.	Xtk. Mean	Xtk. St. Dev.
Pass 3	-3.39	18.92	-963.63	91.11
Pass 4	43.51	2.73	1390.47	201.56
Pass 5	39.46	0.04	-1458	2.72
Pass 6	55.08	2.53	-98.75	25.72
Pass 7	38.85	2.89	700.78	35.67
Pass 8	46.85	2.94	-300.11	65.84
Pass 9	48.59	2.78	404.48	72.95
Pass 10	47.06	3.45	-493.99	50.07
Pass 11	-11.15	1.89	293.17	217.39
Pass 12	-4.41	3.3	-263.95	77.06
Pass 13	-4.06	3.24	167.03	426.48
Pass 14	-3.06	2.09	27.79	88.79
Pass 15	-4.52	3.5	-616.98	95.23
Pass 16	8.52	3.25	720.54	238.09
Pass 17	3.59	4.31	604.43	20.16
Pass 18	14.13	1.7	264.29	202.94
Pass 19	19.13	2.56	-461.08	19.84
Pass 20	14.73	2.76	-456.35	152.1
Pass 21	17.63	3.02	53.9	261.51
Pass 22	6.06	2.35	-875.57	388.11
Pass 23	13.98	2.03	-887.74	349.95
Pass 24	-42.51	3.02	1361.87	97.4
Pass 25	-43.47	1.55	-369.6	69.71
Pass 26	-43.66	1.43	-376.54	69.76
Pass 27	-36.02	1.99	645.78	82.27
Pass 28	-41.03	2.27	-153.59	119.91
Pass 29	-40.4	2.1	-519.84	172.7

# NORMALIZED AVE POWER LEVEL SUMMARY (TO: Max Groundspeed & 2000 Hz)

FOR P3 FLIGHT OF 28 Jun 1995, STARTING HOUR: 3

NOTE: X and L band transmitter power levels may vary if the gain of the RF pulse was not adusted for a radar configuration change. Consult the Mission Summary sheet for details.

ASS LINE

POWER (dBm)

		X		L		С		P	GN	DSPD (kt
									-	
3	3 2	-31.4	.05	-31.2	.05	-37.3	.04	-70.0	0.00	254.5
4		-31.4	0.00	-31.2	0.00	-70.0	0.00	-70.0	0.00	250.7
. 5		-31.4	0.00	-31.2	0.00	-28.2	0.00	-70.0	0.00	252.6
$\epsilon$		-70.0	0.00	-"0.0	0.00	-70.0	0.00	47.0	.97	250.7
7		-70.0	0.00	-"0.0	0.00	-70.0	0.00	47.2	.05	254.4
8		-70.0	0.00	-"0.0	0.00	-70.0	0.00	47.2	.06	251.8
9	11	-70.0	0.00	-"0.0	0.00	-70.0	0.00	47.2	.02	252.0
10		-70.0	0.00	-~0.0	0.00	-70.0	0.00	47.1	.03	251.0
11		-70.0	0.00	-"0.0	0.00	-70.0	0.00	-70.0	0.00	251.7
12		-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.4	.04	254.9
13		-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.8	.08	249.7
14		<del>-</del> 70.0	0.00	-~0.0	0.00	-70.0	0.00	46.6	.05	250.0
15		<del>-</del> 70.0	0.00	-~0.0	0.00	-70.0	0.00	46.6	.04	251.6
16		-70.0	0.00	-"0.0	0.00	-7.0.0	0.00	46.6	.05	250.7
17		-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.5	.05	253.1
18		-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.5	.05	248.8
19		-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.5	.04	248.4
20		<del>-</del> 70.0	0.00	-~0.0	0.00	-70.0	0.00	46.6	.05	252.0
21		-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.5	.05	247.2
22		-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.6	.04	255.1
23		-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.7	.03	247.4
24		-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.5	.03	249.8
25		-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.4	0.00	251.7
26		-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.4	.05	251.8
27		-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.2	.04	250.2
28		-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.1	.04	251.6
29	49	-70.0	0.00	,0.0	0.00	-70.0	0.00	46.0	.05	249.2
VE:										
		-31.4	.02	-31.2	.02	-32.8	.02	46.6	.08	

# PEAK POWER LEVEL SUMMARY

# FOR P3 FLIGHT OF 28 Jun 1995, STARTING HOUR: 3

PASS LINE PEAK	POWER	(Watts)
----------------	-------	---------

		Х	1.		C 	P
3	2	2317.0	3542	9	755.5	0.0
4	4	2328.7	3565	5	0.0	0.0
5		2310.6	3537	7	6077.5	0.0
5 6	7	0.0	0 -	0	0.0	946.3
7	5	0.0	0	0	0.0	1001.7
8	9	0.0	0	0	0.0	1002.9
9	11	0.0	0	0	0.0	999.2
10	13	0.0	0	0	0.0	975.0
11	15	0.0	0	0	0.0	0.0
12	17	0.0	0	0	0.0	834.6
13	19	0.0	0	0	0.0	901.2
14	21	0.0	0	0	0.0	870.4
15	23	0.0	0	0	0.0	865.6
16	25	0.0	0	0	0.0	862.3
17	27	0.0	0	0	0.0	857.1
18	25	0.0	0	0	0.0	847.0
19	29	0.0	0	0	0.0	846.8
20	31	0.0	0	0	0.0	861.5
21	33	0.0	0	0	0.0	857.7
22	35	0.0	0	0	0.0	867.0
23	31	0.0	0	0	0.0	889.7
24	41	0.0	0	0	0.0	853.0
25	43	0.0	0	0	0.0	831.8
26		0.0	0	0	0.0	822.3
27	45	0.0	0	0	0.0	796.6
28	47	0.0	0	0	0.0	775.0
29	49	0.0	0	0	0.0	765.7
VE:						
		2318.8	3548	7	2142.8	875.2

# MISSION SUMMARY FOR:

# Presque Isle DAY 3

ON: 27 Jun 1995

PASS	LN #	S R L R W E O T	BRD DP	ANGS D	DES SAR TRK LK		WAVE, CHANI		
		ASOP	A S	${f T}$		1	2	3	4
		T K	N C	G					
		H	T A	${f T}$					
	2	SHL2	25.0 45			X HH	L HH	С НН	T AA
4-5	4	SHL1	25.0 45			X HH	L HH	С НН	T AA
_6	7	SHR1			0 90	p VV	p VH	p HV	p HH
	5	SHR1	25.0 45	0 45.0		p VV	p VH	p HV	р НН
	9	SHR1	25.0 45	0 45.0	270 0	p VV	HV q	p HV	р нн
9	11	SHR1	25.0 45	0 45.0	90 180	p VV	p VH	p HV	p HH
.O	13	SHR1		0 45.0	276 6	VV q	p VH	p HV	p HH
1	15	SHR1	25.0 30	0 30.0	180 270	p VV	p VH	p HV	p HH
12	17	S R 1	25.0 30.	0.30.0	0 90	p VV	p VH	p HV	р НН
13	19	S R 1	25.0 30.	0.30	270 0	VV q	p VH	p HV	p HH
4	21	S R 1	25.0 30.	0.30.0	90 180	VV q	p VH	p HV	p HH
<b>1</b> 5	23	S R 1	25.0 30.	0.30.0	276 6	p VV	p VH	p HV	р НН
16	25	S R 1	25.0 30.	0.30.0	30 120	p VV	p VH	p HV	р НН
7	27	S R 1	25.0 30.	0.30.0	210 300	p VV	p VH	p HV	рНН
8	25	S R 1	25.0 30.	0.30.0	30 120	p VV	p VH	p HV	рНН
19	29	S R 1	25.0 30.	0.30.0	120 210	p VV	p VH	p HV	рНН
<b>0</b>	31	S R 1	25.0 30.	0.30.0	300 30	p VV	p VH	VH q	нн ф
1	33	SHR1				p VV	Ty VH	p HV	р нн
1 22	35	SHR1	25.0 30	0 30.0	240 330	VV q	p VH	p HV	рНН
_23	31	S R 1	25.0 30.			p VV	рVН	p HV	рНН
4	41	SHR1		0 15.0		p VV	p VH	vH q	тр нн
<b>₽</b> 5−26	43	SHR1		0 15.0		p VV	p VH	VH q	р НН
27	45	SHR1		0 15.0		p VV	p VH	p HV	рНН
8	47	SHR1		0 15.0		VV q	HV q	p HV	рНН
9	49	SHR1				p VV	p VH	p HV	нн ф
						1-	T	F. D.	F

# MISSION SUMMARY FOR:

# Presque Isle DAY 3

ON: 27 Jun 1995

ASS(S)	LINE	HDDT	MOCOMP COUNT	UCT TIME	PASS LEN	TGT ALT
				think then were deep deep other hand deep		
<b>-</b> 5	2	E1439	029861: 0321127	22:36:14 - 22:38:32	( 138)	770
-5	4	E1439	0353808 - 0377098	22:46:47 - 22:49:12	( 145)	770
	7	E1439	0394610 - 0421111	22:56:35 - 22:59:13	(158)	770
-7	5	E1439	0452624 - 0478957	23:06:45 - 23:09:22	(157)	770
9	9	E1439	0500974 - 0528135	23:19:10 - 23:21:52	( 162)	770
9	11	E1439	055884" - 0585317	23:30:01 - 23:32:39	( 158)	770
10	13	E1439	0622168 - 0649162	23:41:40 - 23:44:21	(161)	800
1 2	15	E1439	0667010 - 0693841	23:53:19 - 23:55:59	(160)	770
.2	17	E1440	0726024 - 0751689	00:04:13 - 00:06:46	(153)	770
13	19	E1440	0784368 - 0811200	00:17:57 - 00:20:37	(160)	770
4	21	E1440	0835044 - 0861712	00:27:52 - 00:30:31	(159)	770
.4 .5	23	E1440	089359" - 0920725	00:39:17 - 00:41:59	(162)	800
16	25	E1440	095607: - 0983072	00:52:00 - 00:54:41	(161)	770
17	27	E1440	101045: - 1037274	01:02:43 - 01:05:23	(160)	770
18 19	25	E1440	1066285 - 1093454	01:13:19 - 01:16:01	(162)	770
19	29	E1440	1131299 - 1158804	01:26:37 - 01:29:21	(164)	770
20	31	1441	1180490 - 1207494	01:36:25 - 01:39:06	(161)	770
1 2	33	1441	1252216 - 1279011	01:49:45 - 01:52:25	(160)	770
2	35	1441	131536: - 1341200	02:01:48 - 02:04:22	(154)	770
23	31	1441	1366879 - 1393891	02:16:28 - 02:19:09	(161)	770
-34 25-26 27	41	1441	144975 1476593	02:38:13 - 02:40:53	(160)	770
5-26	43	1441	150177: - 1527940	02:48:11 - 02:50:47	(156)	770
27	45	1441	156428" <b>-</b> 1590796	03:02:38 - 03:05:17	(158)	770
28	47	1441	1616643 - 1643480	03:13:11 - 03:15:51	(160)	770
9	49	E1442	167051: - 1697661	03:24:16 - 03:26:58	( 162)	800

Navigation Summary Sheet For P3 Flight of June 27 Starting at 22:36 (UCT)

ass No	Time (UCT) (hr:mn:sc)	INS XTE Mean S.D. (nm) (nm)		. Dif. S.D. (ft)	INS/GPS Lo Mean (ft)	n. Dif. S.D. (ft)	INS DR LAT (kt)	. RATE LON (kt)
3 4 6 7 8 9 10	22:36:16 22:46:50 22:56:35 23:06:45 23:19:11 23:30:05 23:41:40 23:53:23	-0.00 .02 -0.00 .02 -0.00 .02 01 .03 04 .05 06 .05 09 .03 0.00 0.00	-704.6 853.8 -1276.4 1003.8 635.7 -20.7 -70.2 602.7	390.0 495.2 448.0 437.5 279.2 264.3 350.1 481.4	-165.1 -1117.8 62.9 320.7 1588.4 505.0 492.5 -478.9	265.9 302.0 75.5 77.9 408.9 449.0 415.6 323.5	-2.0 .7 .4 .7 -1.9 -2.0 .1 2.6	-1.9 -3.6 4 .4 1.2 2.6 -2.2
12 13 14 15 16 17 18 19 20 21 22 23 24 25	00:04:17 00:17:58 00:27:52 00:39:17 00:52:03 01:02:47 01:13:22 01:26:37 01:36:29 01:49:45 02:01:49 02:16:29 02:38:14 02:48:15	.01 .02 .02 .06 05 .05 10 .02 12 .06 08 .04 08 .04 0.00 .02 05 .06 08 .05 .02 .09 08 .10 07 .05 02 .04	-720.5 1573.8 529.8 -693.3 -560.8 8.4 -775.0 700.3 -12.3 -235.9 428.3 -633.9 430.3 -521.0	531.4 301.4 318.8 324.4 506.7 483.3 473.0 387.8 506.5 466.2 560.5 437.1 633.4 375.1	-105.4 279.1 308.3 1128.9 74.8 -268.7 -335.3 -1093.2 380.0 -95.2 325.7 778.7 -119.2 55.0	125.1 492.8 404.6 447.7 402.9 368.8 321.4 394.7 329.1 482.2 906.5 700.4 212.2 313.6	5 2.7 3 2 -2.9 -1.4 1.3 .4 2.5 2.9 4.3 -1.9 3.5	-0.0 -2.4 1.9 2.8 .9 -1.2 -2.0 -2.5 -1.8 2.8 -9.0 -2.6 .4 -1.6
27 28 29	03:02:40 03:13:15 03:24:17	10 0.00 08 .05 06 .05	-440.3 -427.3 -205.1	325.9 337.0 385.1	767.6 -101.5 457.9	464.8 357.8 410.7	2.2 -3.2 -2.5	-2.3 1.2 1.7

Navigation Summary Sheet For P3 Flight of June 27 Starting at 22:36 (UCT)

Pass No	Time (UCT) (hr:mn:sc)	GPS Mean (nm)	XTE S.D. (nm)	Comp. Inc. Mean (°)	Ang. S.D. (°)	Baro. Mean (ft)	Alt. S.D. (ft)	Gndsp INS (kt)	geed GPS (kt)
No  3 4 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	(UCT) (hr:mn:sc) 22:36:16 22:46:50 22:56:35 23:06:45 23:19:11 23:30:05 23:41:40 23:53:23 00:04:17 00:17:58 00:27:52 00:39:17 00:52:03 01:02:47 01:13:22 01:26:37 01:36:29 01:49:45 02:01:49 02:16:29	Mean (nm)28 .20 .01 .0812 .1418 .070311 .1318 .06 .100518 .092324	S.D. (nm) 0.00 .04 0.00 .01 .01 .01 .04 .01 .08 .02 .03 .04 .01 .04 .01 .05 .06	Mean (°) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	S.D. (°) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Mean (ft) 13273.3 13264.7 13334.8 13266.1 13313.5 13297.4 13314.6 9862.1 9894.3 9883.2 9874.9 9888.7 9900.4 9876.2 9901.2 9886.3 9899.8 9899.9 9888.8	s.D. (ft)  19.5 3.0 3.7 3.5 3.3 3.8 4.4 2.3 3.8 3.7 2.6 2.3 2.6 3.7 1.7 2.2 2.4 2.2 2.3 2.0	INS (kt)	GPS (kt)  254.2 252.0 251.1 254.6 254.4 259.6 251.4 249.6 254.0 252.8 251.7 250.2 251.4 250.2 251.4 250.2
24 25 27 28 29	02:38:14 02:48:15 03:02:40 03:13:15 03:24:17	.22 04 .05 .05 18	.02 .02 .02 .01	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	5940.6 5948.3 5957.6 5946.8 5960.7	2.9 2.3 3.3 1.9 3.8	249.8 251.8 250.2 251.6 249.2	250.3 250.8 249.4 251.9 250.6
_									

Date: 6/27/95 Line No.: 1 Miss Title: Portage, ME: DAY 3

# Aircraft positions Target: IE

		1	Latitude	L	ong:.tude							
	FROM:	N	63:21.83	W	68:25.93	No.	]	Latitude	I	Longitude	Altitu	ıde
Į	Line-up:	N	47:01.12	W	68:25.93	Start	N	46:49.12	W	68:28.98	770	ft
	Start:	N	46:49.12	W	68:25.93	Main	N	46:44.12	W	68:28.98	770	ft
	End:	N	46:39.12	W	68:25.93	Last	N	46:39.12	W	68:28.98	770	ft
	TO •	N	30.02 59	W	68 25 93							

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: XLC Radar Collection mode: Stripmap

	X Offset:	4.09	ft	Alt over tgt:	12730.00 ft	Des Trk:	180.00°
	Cmp Grg:	2.09	nmi	Ant Dep ang:	25.00°	Look:	Right
	Cmp Alt: 12	730.00	ft	Est time:	2:24 min	Resolution:	
	Map Len:	10.00	nmi	MCP Slt rng:	2.96 nmi	Swath Width:	Single
	Strip Len:	10.00	nmi	Strip Len Pad:	0.00 nmi	•	
	Req Pndr:	0.00	ft	Beg Squint:	90.00°	End Squint:	90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presum@

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	X HH	45.00°	45.00°	1.64 nmi
Ch 2:	L HH	45.00°	45.00°	1.64 nmi
Ch 3:	<b>Е НН</b>	45.00°	45.00°	1.64 nmi
Ch 4:	L VV	45.00°	45.00°	1.64 nmi

Date: 6/27/95 Line No.: 2 Miss Title: Portage, ME: DAY 3

# Aircraft positions Target: IE

		]	Latitude	L	ong∴tude							
ı	FROM:	N	30:02.59	W	68:25.93	No.	]	Latitude	L	ongitude	Altitu	ude
J	Line-up:	N	46:27.13	W	68:25.93	Start	N	46:39.12	W	68:28.98	770	ft
	Start:	N	46:39.12	W	68:25.93	Main	N	46:44.12	W	68:28.98	770	ft
Ì	End:	N	46:49.12	W	68:25.93	Last	N	46:49.12	W	68:28.98	770	ft
	TO:	N	63:21.83	W	68: 25, 93							

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: XLC Radar Collection mode: Stripmap

X Offset:	4.09 ft	Alt over tgt:	12730.00 ft	Des Trk:	0.00°
Cmp Grg:	2.10 nmi	Ant Dep ang:	25.00°	Look:	Left
Cmp Alt: 12	730.00 ft	Est time:	2:24 min	Resolution:	
Map Len:	10.00 nmi	MCP Slt rng:	2.96 nmi	Swath Width:	Single
Strip Len:	10.00 nmi	Strip Len Pad:	0.00 nmi		_
1					

Req Pndr: 0.00 ft Beg Squint: -90.00° End Squint: -90.00° RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presum6

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	х нн	45.00°	45.00°	1.64 nmi
Ch	2:	L HH	45.00°	45.00°	1.64 nmi
Ch	3:	С НН	45.00°	45.00°	1.64 nmi
Ch	4:	r aa	45.00°	45.00°	1.64 nmi

Date: 6/27/95 Line No.: 3 Miss Title: Portage, ME: DAY 3

# Aircraft positions Target: IE

-		]	Latitude	L	ong∴tude							
ı	FROM:	N	30:02.59	W	68:32.03	No.	]	Latitude	L	ongitude	Altitu	ıde
ļ	Line-up:	N	46:27.13	W	68:32.03	Start	N	46:39.12	W	68:28.98	770	ft
	Start:	N	46:39.12	W	68:32.03	Main	N	46:44.12	W	68:28.98	770	ft
Ì	End:	N	46:49.12	W	68:32.03	Last	N	46:49.12	W	68:28.98	770	ft

N 63:21.83 W 68:32.03

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: XLC Radar Collection mode: Stripmap

X Offset:	4.11 ft	Alt over tgt:	12730.00 ft	Des Trk:	0.00°
Cmp Grg:	2.10 nmi	Ant Dep ang:	25.00°	Look:	Right

Resolution:

Swath Width: Single

 Cmp Alt: 12730.00 ft
 Est time:
 2:24 min

 Map Len: 10.00 nmi
 MCP Slt rng:
 2.96 nmi

 Strip Len: 10.00 nmi
 Strip Len Pad:
 0.00 nmi

 Req Pndr: 0.00 ft
 Beg Squint:
 90.00°

 Req Pndr: 0.00 ft End Squint: 90.00°

RgGtDlt: 0.00 ft Adjund Scene: 5000.00 ft

Pre-processor mode: Presumo

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	X HH	45.00°	45.00°	1.64 nmi
Ch	2:	L HH	45.00°	45.00°	1.64 nmi
Ch	3:	C HH	45.00°	45.00°	1.64 nmi
Ch	4:	L VV	45.00°	45.00°	1.64 nmi

Date: 6/27/95 Line No.: 4 Miss Title: Portage, ME: DAY 3

# Aircraft positions Target: IE

٠		I	Latitude	L	ong:.tude								
ı	FROM:	N	63:21.83	W	68:32.03	No.	I	atitude	Lo	ongitud	e i	Altitu	ıde
•	Line-up:	N	47:01.12	W	68:32.03	Start	t n	46:49.12	W	68:28.	98	770	ft
	Start:	N	46:49.12	W	68:32.03	Main	N	46:44.12	W	68:28.	98	770	ft
Ì	End:	N	46:39.12	W	68 32.03	Last	N	46:39.12	W	68:28.	98	770	ft
	TO:	N	30:02.59	W	68:32.03								
						Tgt	Trk:	0.0°		Vel:	0.0	knots	\$

Radar data

Radar Mode: XLC Radar Collection mode: Stripmap

	X Offset:	4.09	ft	Alt over tgt:	12730.00 ft	Des Trk:	180.00°
	Cmp Grg:	2.09	nmi	Ant Dep ang:	25.00°	Look:	Left
	Cmp Alt: 127	730.00	ft	Est time:	2:24 min	Resolution:	
	Map Len:	10.00	nmi	MCP Slt rng:	2.96 nmi	Swath Width:	Single
	Strip Len:	10.00	nmi	Strip Len Pad:	0.00 nmi		_
	Req Pndr:	0.00	ft	Beg Squint:	-90.00°	End Squint:	-90.00°
1						-	

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presum6

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	X HH	45.00°	45.00°	1.64 nmi
Ch	2:	L HH	45.00°	45.00°	1.64 nmi
Ch	3:	C HH	45.00°	45.00°	1.64 nmi
Ch	4:	r vv	45.00°	45.00°	1.64 nmi

Date: 6/27/95 Line No.: 5 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude FROM: N 63:21.83 W 68:25.93 Longitude Altitude No. Latitude Line-up: N 47:01.12 W 68:25.93 Start N 46:49.12 W 68:28.98 770 ft Start: N 46:49.12 W 68:25.93 Main N 46:44.12 W 68:28.98 770 ft

End: N 46:39.12 W 68:25.93 Last N 46:39.12 W 68:28.98 770 ft

Tgt Trk: 0.0° Vel: 0.0 knots

N 30:02.59 W 68:25.93 TO:

Radar data

Radar Collection mode: Stripmap Radar Mode: UWB

X Offset: 4.09 ft Alt over tgt: 12730.00 ft Des Trk: 180.00° 2.09 nmi Ant Dep ang: 25.00° Look: Cmp Grq: Right

Cmp Alt: 12730.00 ft Est time: Resolution:

2:24 min 2.96 nmi 0.00 nmi MCP Slt rng: Map Len: 10.00 nmi Swath Width: Single

10.00 nmi Strip Len: Str:p Len Pad:

Strip Len Pad: 0.00 r Beg Squint: 90.00° Req Pndr: 0.00 ft End Squint: 90.00°

RgGtDlt: 0.00 ft Adjund Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CNL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Length: Sampling Frequency: 800.0 MHz 0.0 uSec Notches: Predistortion Type: UWB Amplitude fix

1 ) 1 MHz Bandwidth Centered @ 242.9 MHz, Depth @ 9.3 dB

1 MHz Bandwidth Centered @ 406 MHz, Depth @ 9.3 dB

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	45.00°	45.00°	2.71 nmi
Ch 2:	p VH	45.00°	45.00°	2.71 nmi
Ch 3:	p HV	45.00°	45.00°	2.71 nmi
Ch 4:	НН с	45.00°	45.00°	2.71 nmi

Date: 6/27/95 Line No.: 7 Miss Title: Portage, ME: DAY 3

Altitude

770 ft

Aircraft positions Target: IE

Latitude Long: tude FROM: N 30:02.59 W 68:32.03 No. Latitude Longitude Line-up: N 46:27.13 W 68:32.03 Start N 46:39.12 W 68:28.98

Start: N 46:39.12 W 68:32.03 Main N 46:44.12 W 68:28.98 770 ft

End: N 46:49.12 W 68:32.03 Last N 46:49.12 W 68:28.98 770 ft

TO: N 63:21.83 W 68:32.03

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 4.11 ft Alt over tgt: 12730.00 ft Des Trk: 0.00°

Cmp Grg: 2.10 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 12730.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 2.96 nmi Swath Width: Single

Strip Len: 10.00 nmi Str.p Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presum

Chirp File Parameters:

Transmit Chirp File: CUL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	45.00°	45.00°	2.71 nmi
Ch	2:	p VH	45.00°	45.00°	2.71 nmi
Ch	3:	p HV	45.00°	45.00°	2.71 nmi
Ch	4:	НН а	45.00°	45.00°	2.71 nmi

Date: 6/27/95 Line No.: 9 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Long:.tude W 44:58.54 FROM: N 44:13.17 No. Latitude Longitude Altitude Line-up: N 46:41.98 W 68:04.28 Start N 46:44.11 W 68:21.71 770 ft Start: N 46:42.02 W 68:21.71 Main N 46:44.12 W 68:28.98 770 ft

End: N 46:42.02 W 68:36.25 Last N 46:44.12 W 68:36.25 770 ft

Tgt Trk:

Vel:

0.0°

0.0 knots

N 44:13.17 W 91 59.42 TO:

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

19.53 ft Alt over tgt: 12730.00 ft X Offset: Des Trk: 270.09° Right

Cmp Grq: 2.10 nmi Ant Dep ang: 25.00° Look: Cmp Alt: 12730.00 ft Est time: Resolution: 2:24 min

Map Len: 10.00 nmi MCP Slt rng: Swath Width: Single 2.96 nmi

Strip Len Pad: Strip Len: 10.00 nmi 0.00 nmi

0.00 ft End Squint: Req Pndr: Beg Squint: 90.00° 90.00°

RqGtDlt: 0.00 ft Adjand Scene: 5000.00 ft

Pre-processor mode: Presumo

Latitude

Chirp File Parameters:

Transmit Chirp File: CTL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1	: p VV	45.00°	45.00°	2.71 nmi
Ch 2	: p VH	45.00°	45.00°	2.71 nmi
Ch 3	: p HV	45.00°	45.00°	2.71 nmi
Ch 4	: HH c	45.00°	45.00°	2.71 nmi

Date: 6/27/95 Line No.: 11 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

FROM: N 44:17.01 W 92:01.04 No. Latitude Longitude Altitude Line-up: N 46:46.17 68 53.71 Start N 46:44.11 W 68:36.25 770 ft Start: N 46:46.21 W 68:36.25 Main N 46:44.12 W 68:28.98 770 ft End: N 46:46.21 W 68:21.71 Last N 46:44.12 W 68:21.71 770 ft

TO: N 44:17.01 W 44:56.92

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 19.55 ft Alt over tgt: 12730.00 ft Des Trk: 89.91° Cmp Grg: 2.10 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 12730.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 2.96 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CLL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	45.00°	45.00°	2.71 nmi
Ch	2:	p VH	45.00°	45.00°	2.71 nmi
Ch	3:	p HV	45.00°	45.00°	2.71 nmi
Ch	4:	р НН	45.00°	45.00°	2.71 nmi

Date: 6/27/95 Line No.: 13 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: CALCS

Long:.tude Latitude Longitude Altitude FROM: N 42:36.03 45:45.85 No. Latitude Line-up: N 46:40.39 W 68:04.74 Start N 46:43.76 W 68:21.75 800 ft N 46:44.29 W 68:28.98 800 ft N 46:41.68 W 68:22.07 Main Start: 800 ft N 46:44.81 W 68:36.21 Last End: N 46:42.73 W 68:36.53

TO: N 45:53.35 W 92.35.40

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 18.32 ft Alt over tgt: 12700.00 ft Des Trk: 276.08° Cmp Grg: 2.09 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 12700.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 2.96 nmi Swath Width: Single

Strip Len: 10.00 nmi Str:p Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CML1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	45.00°	45.00°	2.70 nmi
Ch	2:	p VH	45.00°	45.00°	2.70 nmi
Ch	3:	VH q	45.00°	45.00°	2.70 nmi
Ch	4:	нн ф	45.00°	45.00°	2.70 nmi

Date: 6/27/95 Line No.: 15 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude FROM: 68:25.15 No. Latitude Longitude Altitude N 63:21.83 Line-up: N 47:01.12 N 46:49.12 W 68:28.98 770 ft 68:25.15 Start W 770 ft 68:25.15 Main N 46:44.12 W 68:28.98 N 46:49.12 W Start: N 46:39.12 W 68:28.98 770 ft. Last End: N 46:39.12 W 68:25.15

TO: N 30:02.59 W 68 25.15

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 6.45 ft Alt over tgt: 9230.00 ft Des Trk: 180.00° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CML1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	ρVV	30.00°	30.00°	2.79 nmi
Ch	2:	p VH	30.00°	30.00°	2.79 nmi
Ch	3:	VH q	30.00°	30.00°	2.79 nmi
Ch	4:	НН ф	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 17 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long::tude

68:32.80 Latitude Longitude Altitude FROM: N 30:02.59 No. N 46:39.12 W 68:28.98 770 ft Line-up: N 46:27.13 W 68:32.80 Start 770 ft Start: N 46:39.12 W 68:32.80 Main N 46:44.12 W 68:28.98 End: N 46:49.12 W 68 32.80 Last N 46:49.12 W 68:28.98 770 ft

TO: N 63:21.83 W 68:32.80

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 6.45 ft Alt over tgt: 9230.00 ft Des Trk: 0.00° Cmp Grq: 2.64 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CUL1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRLINOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	30.00°	30.00°	2.79 nmi
Ch	2:	HV q	30.00°	30.00°	2.79 nmi
Ch	3:	VH q	30.00°	30.00°	2.79 nmi
Ch	4:	НН а	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 19 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

W 44:58.75 No. Latitude Longitude Altitude N 44:12.68 FROM: Line-up: N 46:41.44 W 68:04.28 N 46:44.11 W 770 ft 68:21.71 Start 770 ft Start: N 46:41.48 W 68:21.71 N 46:44.12 W 68:28.98 Main 770 ft End: N 46:41.48 W 68 36.25 Last N 46:44.12 W 68:36.25

TO: N 44:12.68 W 91:59.21

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 24.52 ft Alt over tgt: 9230.00 ft Des Trk: 270.09° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Str.p Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CML1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	ρVV	30.00°	30.00°	2.79 nmi
Ch	2:	HV q	30.00°	30.00°	2.79 nmi
Ch	3:	VH q	30.00°	30.00°	2.79 nmi
Ch	4:	нн а	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 21 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Longitude

Latitude Longitude N 44:17.50 W 92:01.25 No. FROM: Line-up: N 46:46.70 W 68:53.71 N 46:44.11 W 68:36.25 770 ft Start 770 ft N 46:44.12 W Start: N 46:46.74 W 68:36.25 Main 68:28.98 N 46:44.12 W 68:21.71 770 ft Last End: N 46:46.74 W 68 21.71

TO: N 44:17.50 W 44 56.71

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 24.55 ft Alt over tgt: 9230.00 ft Des Trk: 89.91° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Reg Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CUL1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Ran	ge
Ch	1:	VV q	30.00°	30.00°	2.79 nmi	
Ch	2:	HV q	30.00°	30.00°	2.79 nmi	
Ch	3:	VH q	30.00°	30.00°	2.79 nmi	
Ch	4:	нн а	30.00°	30.00°	2.79 nmi	

Date: 6/27/95 Line No.: 23 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: CALCS

Latitude Long:.tude

Altitude W 45:46.11 No. Latitude Longitude N 42:35.56 FROM: N 46:43.76 W 68:21.75 800 ft Line-up: N 46:39.86 W 68:04.82 Start 800 ft N 46:44.29 W 68:28.98 Start: N 46:41.15 W 68:22.15 Main N 46:42.20 W 68 36.61 Last N 46:44.81 W 68:36.21 800 ft End:

TO: N 45:52.85 W 92:35.25

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 22.72 ft Alt over tgt: 9200.00 ft Des Trk: 276.08° Cmp Grg: 2.62 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9200.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.03 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CML1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	VV q	30.00°	30.00°	2.78 nmi
Ch	2:	HV q	30.00°	30.00°	2.78 nmi
Ch	3:	VH q	30.00°	30.00°	2.78 nmi
Ch	4:	нн а	30.00°	30.00°	2.78 nmi

Date: 6/27/95 Line No.: 25 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

78 14.04 FROM: N 31:49.89 No. Latitude Longitude Altitude Line-up: N 46:30.71 68:44.60 Start N 46:39.80 W 68:32.62 770 ft W 770 ft N 46:41.11 W 68:35.93 Main N 46:44.12 W 68:28.98 Start: End: N 46:49.77 W 68:28.66 Last N 46:48.45 W 68:25.33 770 ft

TO: N 60:12.77 W 51:51.23

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 1.65 ft Alt over tgt: 9230.00 ft Des Trk: 29.95° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Reg Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presum6

Chirp File Parameters:

Transmit Chirp File: CLL1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	30.00°	30.00°	2.79 nmi
Ch	2:	p VH	30.00°	30.00°	2.79 nmi
Ch	3:	p HV	30.00°	30.00°	2.79 nmi
Ch	4:	нн ф	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 27 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

51:45.39 Latitude Longitude Altitude FROM: N 60:10.02 No. 68:13.24 N 46:48.45 W 68:25.33 770 ft Line-up: N 46:57.51 W Start 770 ft Start: N 46:47.13 W 68:22.02 Main N 46:44.12 W 68:28.98 End: N 46:38.47 W 68:29.28 Last N 46:39.80 W 68:32.62 770 ft

TO: N 31:47.42 W 78:07.50

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 1.68 ft Alt over tgt: 9230.00 ft Des Trk: 210.05° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Reg Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CML1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	30.00°	30.00°	2.79 nmi
Ch	2:	HV q	30.00°	30.00°	2.79 nmi
Ch	3:	p HV	30.00°	30.00°	2.79 nmi
Ch	4:	нн а	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 29 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

FROM: 92.35.12 Latitude N 52:47.33 No. Longitude Altitude W 68:48.54 N 46:46.61 W Line-up: N 46:54.86 Start 68:35.29 770 ft N 46:48.89 W 68:33.37 Main N 46:44.12 W 68:28.98 770 ft Start: End: N 46:43.89 W 68:20.78 Last N 46:41.63 W 68:22.68 770 ft

TO: N 36:51.34 W 50:24.96

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 11.97 ft Alt over tgt: 9230.00 ft Des Trk: 119.94° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CML1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	30.00°	30.00°	2.79 nmi
Ch	2:	p VH	30.00°	30.00°	2.79 nmi
Ch	3:	VH q	30.00°	30.00°	2.79 nmi
Ch	4:	нн ф	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 31 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

Longitude Altitude Latitude N 36:47.45 50:29.32 No. FROM: Line-up: N 46:33.32 W 68:09.55 N 46:41.62 W 68:22.69 770 ft Start 770 ft Start: N 46:39.35 W 68:24.60 Main N 46:44.12 W 68:28.98 770 ft N 46:44.34 W 68:37.19 Last N 46:46.62 W 68:35.28 End:

TO: N 52:42.60 W 92:36.70

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 11.89 ft Alt over tgt: 9230.00 ft Des Trk: 300.06° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Reg Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CUL1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	VV q	30.00°	30.00°	2.79 nmi
Ch	2:	HV q	30.00°	30.00°	2.79 nmi
Ch	3:	VH q	30.00°	30.00°	2.79 nmi
Ch	4:	НН с	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 33 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

FROM: N 36:51.35 86:33.02 Latitude Longitude Altitude No. W W 68:52.25 Start N 46:41.62 W 68:35.27 770 ft Line-up: N 46:37.87 Start: N 46:43.90 W 68:37.18 Main N 46:44.12 W 68:28.98 770 ft End: N 46:48.90 W 68:24.59 Last N 46:46.62 W 68:22.68 770 ft

TO: N 52:47.34 W 44:22.84

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 19.98 ft Alt over tgt: 9230.00 ft Des Trk: 59.91° Cmp Grq: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	30.00°	30.00°	2.79 nmi
Ch	2:	p VH	30.00°	30.00°	2.79 nmi
Ch	3:	p HV	30.00°	30.00°	2.79 nmi
Ch	4:	нн а	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 35 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

No. FROM: N 52:42.59 44:21.25 Latitude Longitude Altitude 770 ft Line-up: N 46:50.30 W 68.05.61 Start N 46:46.61 W 68:22.67 770 ft Start: N 46:44.33 W 68:20.76 Main N 46:44.12 W 68:28.98 End: N 46:39.33 W 68:33.35 Last N 46:41.63 W 68:35.28 770 ft

TO: N 36:47.44 W 86:28.63

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 20.01 ft Alt over tgt: 9230.00 ft Des Trk: 240.09° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: C'L1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	30.00°	30.00°	2.79 nmi
Ch	2:	p VH	30.00°	30.00°	2.79 nmi
Ch	3:	p HV	30.00°	30.00°	2.79 nmi
Ch	4:	нн а	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 37 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

No. Longitude Altitude FROM: N 60:12.77 85:06.75 Latitude Line-up: N 47:00.14 N 46:48.45 W 68:38.09 Start 68:32.63 770 ft W N 46:44.12 W 68:28.98 770 ft Start: N 46:49.76 W 68:29.32 Main End: N 46:41.10 W 68:22.05 Last N 46:39.80 W 68:25.34 770 ft

TO: N 31:49.89 W 58:43.93

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 4.49 ft Alt over tgt: 9230.00 ft Des Trk: 149.97° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Str.p Len Pad: 0.00 nmi

Reg Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDit: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CUL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	VV q	30.00°	30.00°	2.79 nmi
Ch	2:	HV q	30.00°	30.00°	2.79 nmi
Ch	3:	p HV	30.00°	30.00°	2.79 nmi
Ch	4:	НН ф	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 39 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

N 31:47.43 Latitude Longitude Altitude FROM: 58:50.45 No. Line-up: N 46:28.08 W Start N 46:39.80 W 68:25.34 770 ft 68:19.99 770 ft Start: N 46:38.48 W 68:28.66 Main N 46:44.12 W 68:28.98 End: N 46:47.14 W 68:35.93 Last N 46:48.45 W 68:32.62 770 ft

TO: N 60:10.03 W 85:12.55

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 4.48 ft Alt over tgt: 9230.00 ft Des Trk: 330.03° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CLL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	30.00°	30.00°	2.79 nmi
Ch	2:	p VH	30.00°	30.00°	2.79 nmi
Ch	3:	p HV	30.00°	30.00°	2.79 nmi
Ch	4:	НН а	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 41 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long∴tude

68:24.31 Latitude Longitude Altitude FROM: N 63:21.83 No. 770 ft Line-up: N 47:01.12 W 68:24.31 Start N 46:49.12 W 68:28.98 N 46:49.12 W 68:24.31 Main N 46:44.12 W 68:28.98 770 ft Start: N 46:39.12 W 68:24.31 N 46:39.12 W 68:28.98 770 ft Last End:

TO: N 30:02.59 W 68:24.31

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 9.62 ft Alt over tgt: 5230.00 ft Des Trk: 180.00° Cmp Grg: 3.21 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 5230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.33 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CLL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	VV q	15.00°	15.00°	3.07 nmi
Ch	2:	HV q	15.00°	15.00°	3.07 nmi
Ch	3:	VH q	15.00°	15.00°	3.07 nmi
Ch		нн а	15.00°	15.00°	3.07 nmi

Date: 6/27/95 Line No.: 43 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

No. Latitude Longitude Altitude 68:33.65 FROM: N 30:02.59 Line-up: N 46:27.13 W N 46:39.12 W 68:28.98 770 ft 68:33.65 Start N 46:44.12 W 770 ft N 46:39.12 W 68:33.65 Main 68:28.98 Start: N 46:49.12 W 68:33.65 Last N 46:49.12 W 68:28.98 770 ft End:

TO: N 63:21.83 W 68:33.65

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 9.62 ft Alt over tgt: 5230.00 ft Des Trk: 0.00° Cmp Grg: 3.22 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 5230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.33 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Reg Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presum6

Chirp File Parameters:

Transmit Chirp File: CL'L1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRLINOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	15.00°	15.00°	3.07 nmi
Ch	2:	p VH	15.00°	15.00°	3.07 nmi
Ch	3:	p HV	15.00°	15.00°	3.07 nmi
Ch	4:	нн а	15.00°	15.00°	3.07 nmi

Date: 6/27/95 Line No.: 45 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

FROM: N 44:12.15 44:58.97 No. Latitude Longitude Altitude Line-up: N 46:40.86 W N 46:44.11 W 68:21.71 68:04.28 Start 770 ft N 46:44.12 W 68:28.98 770 ft Start: N 46:40.90 W 68:21.71 Main End: N 46:40.90 W 68:36.25 Last N 46:44.12 W 68:36.25 770 ft

TO: N 44:12.15 W 91:58.99

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 29.93 ft Alt over tgt: 5230.00 ft Des Trk: 270.09° Cmp Grg: 3.21 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 5230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.33 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CML1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	15.00°	15.00°	3.07 nmi
Ch	2:	p VH	15.00°	15.00°	3.07 nmi
Ch	3:	vH q	15.00°	15.00°	3.07 nmi
Ch	4:	НН а	15.00°	15.00°	3.07 nmi

Date: 6/27/95 Line No.: 47 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Long:.tude

Longitude FROM: W 92:01.47 Latitude Altitude N 44:18.04 No. Line-up: N 46:47.28 W 68:53.71 N 46:44.11 W 68:36.25 770 ft Start Start: N 46:47.33 W 68:36.25 Main N 46:44.12 W 68:28.98 770 ft

End: N 46:47.33 W 68:36.25 Main N 46:44.12 W 68:20.36 770 ft

TO: N 44:18.04 W 44:56.49

Latitude

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 29.98 ft Alt over tgt: 5230.00 ft Des Trk: 89.91° Cmp Grg: 3.21 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 5230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.33 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Reg Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presum6

Chirp File Parameters:

Transmit Chirp File: CML1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	15.00°	15.00°	3.07 nmi
Ch 2:	p VH	15.00°	15.00°	3.07 nmi
Ch 3:	p HV	15.00°	15.00°	3.07 nmi
Ch 4:	нн а	15.00°	15.00°	3.07 nmi

Line No.: 49 Miss Title: Portage, ME: DAY 3 Date: 6/27/95

Longitude

Altitude

800 ft

Aircraft positions Target: CALCS

Latitude Long:.tude FROM: 45:46.39 No. N 42:35.05 Latitude Line-up: N 46:39.29 W 68:04.91 N 46:43.76 W 68:21.75 Start

800 ft Start: N 46:40.59 W 68:22.23 Main N 46:44.29 W 68:28.98 800 ft End: N 46:41.63 W 68:36.69 Last N 46:44.81 W 68:36.21

TO: N 45:52.31 W 92:35.10

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

Des Trk: X Offset: 27.31 ft Alt over tgt: 5200.00 ft 276.08°

Cmp Grg: 3.19 nmi Ant Dep ang: 25.00° Look: Right Cmp Alt: 5200.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.31 nmi Swath Width: Single

0.00 nmi

Strip Len: 10.00 nmi Strip Len Pad: 90.00° End Squint: Req Pndr: 0.00 ft Beg Squint: 90.00°

RqGtDlt: 0.00 ft Adjund Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CNL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1N0A

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	VV q	15.00°	15.00°	3.05 nmi
Ch 2:	p VH	15.00°	15.00°	3.05 nmi
Ch 3:	VH q	15.00°	15.00°	3.05 nmi
Ch 4:	р НН	15.00°	15.00°	3.05 nmi

**Post-pass Data Sheets** 

27 Jun 1995

Post-line Data Sheet Line 2

Time: 178:22:36:14 Pass

Tape: E1439

Mission: Presque Isle DAY 3 Req.# 1

### AIRCRAFT & CHANNEL DATA

Altitude Desired:	13500 ft		Wave/Pol.:	CH 1 X-HH	CH 2 L-HH	CH 3 C-HH	CH 4 L-VV
Baro:	13273  ft s.d =	19	Swath Ctr Ang:	45.0°	45.0°	45.0°	45.0°
Slt. rng:	18003 ft		Tgt Dep Ang:	45.0°	45.0°	45.0°	45.0°
Look:	Left		St rng (ft):	9947	9947	9947	9947
Depr Ang:	25.0°		Near Rng Dep:	90.0°	90.0°	90.0°	90.0°
Des. trk:	0.0°		Far Rng Dep:	30.6°	30.6°	30.6°	30.6°
Start Sq:	-90.0°		Atten (dB):	20.0	35.0	18.0	35.0
End Sq:	-90.0°		RMS Video (%FS)	7.0	27.5	24.2	26.8

### WAYPOINTS

	Latitude	Longitude	
Line_up:	N 46:27.13	W 68:25.93	Main Target: IE
Start:	N 46:39.12	W 68:25.93	Mocomp Point:

Mocomp Point: Lat: N 46:44.12 End: N 46:49.12 W 68:25.93

Long: W 68:28.98
Tgt Trk: 0.0 Tgt Vel: 0.0 From: N 30:02.59 W 68:25.93 N 63:21.83 W 68:25.93 Alt: 770.0 ft

# RADAR PARAMETERS - for XLC

Filter damping is Hi -> 10 sec PRF Factor is FAST (262.5 kts) RTP Channel: 2 Resolution: High Swath width: Single Ave Gndspd: Real -> 254.5 kts RMS Time Constant: 2^7 Mocomp On Position Reference: ON GPS Vel/Pos Reference

Atten. Tracking: OFF

Range Gate Delta: 0.0 ft

Azimuth Presum Rate: Presum6

Adj Gnd Scene: 5000.0 ft

Range Tracking is OFF

Clutterlock Reference: OFF

Ave Ref Vel -> -1.1 fps (s.d.= 1.2) Ave Fil Vel -> .2 fps (s.d.= 1.0)

NML XMIT PWR	ANT BIAS		Tape Fo	otage		Drive no.
X: -31.4	Elevaton:	0.0°	-	-		
L: -31.2	Azimuth:	0.0°	Starting:	472	ft	(1)
C: -37.3	Pitch:	0.0°	Ending:	1535	ft	(1)

CPA (UCT): 00:00:00

P: -70.0

Ve:	l Bias	CA	Atten	LINE Map	Time (UCT)
<b>X:</b>	1024.0	X:	63.8 dB	Start:	22:36:14
<b>Y:</b>	-463.0	L:	63.8 dB	End:	22:38:32
Z:	6435.0	C:	63.8 dB		

## Mocomp Counters

Start: 298611 00048E73h End: 321127 000 Alt: 0 ft (GPS) Lat: N 0:00: 0 Lon: E 0:00:0

27 Jun 1995 27 Jun 1995 Tape: E1439

Post-line Data Sheet
Line 4
Mission: Pro-

Time: 178:22:46:47 Pass 4

Mission: Presque Isle DAY 3 Req.# 2

### AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	13500 ft 13264 ft s.d = 18003 ft Left	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 X-HH 45.0° 45.0° 9947	CH 2 L-HH 45.0° 45.0° 9947	CH 3 C-HH 45.0° 45.0° 9947	CH 4 L-VV 45.0° 45.0° 9947
Depr Ang:	25.0°	Near Rng Dep:	90.0°	90.0°	90.0°	90.0°
Des. trk:	180.0°	Far Rng Dep:	30.6°	30.6°	30.6°	30.6°
Start Sq:	-90.0°	Atten (dB):	18.0	35.0	18.0	35.0
End Sq:	-90.0°	RMS Video (%FS)	9.1	26.9	3.2	26.9

### WAYPOINTS

	Latitude	Longitude	
Line_up:	N 47:01.12	W 68:32.03	Main Target: IE
		W 68:32.03	Mocomp Point:

End: N 46:39.12 W 68:32.03 Lat: N 46:44.12

Long: W 68:28.98

From: N 63:21.83 W 68:32.03 To: N 30:02.59 W 68:32.03 Tgt Trk: 0.0 Tgt Vel: 0.0 Alt: 770.0 ft

# RADAR PARAMETERS - for XLC

RTP Channel: 1 Filter damping is Hi -> 10 sec PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 250.7 kts
Mocomp On Resolution: High Swath width: Single RMS Time Constant: 2^7 Position Reference: ON GPS Vel/Pos Reference

Atten. Tracking: OFF

Range Gate Delta: 0.0 ft

Azimuth Presum Rate: Presum6

Adj Gnd Scene: 5000.0 ft

Range Tracking is OFF

Clutterlock Reference: OFI Clutterlock Reference: OFF

Ave Ref Vel -> 4.3 fps (s.d.= .8) Ave Fil Vel -> 6.2 fps (s.d.= .7)

NML XMIT PWR	ANT BIAS		Tape Fo	Drive no.	
X: -31.4	Elevat:.on:	0.0°	-	-	
L: -31.2	Azimuth:	0.0°	Starting:	1548 ft	(1)
C: -70.0	Pitch:	0.0°	Ending:	2615 ft	(1)

P: -70.0

Ve	l Bias	CAL A	tten	LINE Map	Time (UCT)
<b>X:</b>	1024.0	X: 63	.8 dB	Start	22:46:47
<b>Y:</b>	-463.0	L: 63	.8 dB	End:	22:49:12
z:	6435.0	C: 63	.8 dB		

### Mocomp Counters

Mocomp Counters		CPA (UCT):	00:00:00	
			Alt:	0 ft (GPS)
Start:	353808	00056610h	Lat: N	0:00: 0
End:	367315	00059AD3h	Lon: E	0:00: 0

27 Jun 1995 | Post-line Data Sheet | Time: 178:22:48:11 | Tape: E1439 | Line 4 | Pass 5 | Req.# 2

# AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	13500 ft 13266 ft s.d = 18003 ft Left	Wave/Pol.: 3 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 X-HH 45.0° 45.0° 9947	CH 2 L-HH 45.0° 45.0° 9947	CH 3 C-HH 45.0° 45.0° 9947	CH 4 L-VV 45.0° 45.0° 9947
Depr Ang:	25.0°	Near Rng Dep:	90.0°	90.0°	90.0°	90.0°
Des. trk:	180.0°	Far Rng Dep:	30.6°	30.6°	30.6°	30.6°
Start Sq:	-90.0°	Atten (dB):	18.0	35.0	15.0	35.0
End Sq:	-90.0°	RMS Video (%FS)	9.3	28.4	4.7	27.1

# WAYPOINTS

	Latitude		ongitude		
Line_up:	N 47:01.12	W	68:32.03	Main Target: IE	
Start:	N 46:49.12	W	68:32.03	Mocomp Point:	
End:	N 46:39.12	W	68:32.03	Lat: N 46:44.12	
				Long: W 68:28.98	
From:	N 63:21.83	W	68:32.03	Tgt Trk: 0.0 Tgt Vel: 0.0	
To:	N 30:02.59	W	68:32.03	Alt: 770.0 ft	

# RADAR PARAMETERS - for XLC

RTP Channel: 1	Filter damping is Hi -> 10 sec
Resolution: High	PRF Factor is FAST (262.5 kts)
Swath width: Single	Ave Gndspd: Real -> 252.6 kts
RMS Time Constant: 2^7	Mocomp On
Position Reference: ON	GPS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF

Ave	Ref	Vel	->	3.4	fps	(s.d.=	.5)
Ave	Fil	Vel	->	5.4	fps	(s.d.=	.4)

NML	XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
<b>X</b> :	-31.4	Elevaton:	0.0°			
L:	-31.2	Azimuth:	0.0°	Starting:	1548 ft	(1)
C:	-28.2	Pitch:	0.0°	Ending:	2615 ft	(1)
P:	-70.0			3		<b>\</b> -/
770	l Bias	CAL Atte	n	TIME Man	Time (UCT)	
ve.	I DIAS	CA. J ALLE	11			
<b>X:</b>	1024.0	X: 63.8	dB	Start:	22:48:11	
<b>Y</b> :	-463.0	L: 63.8	dB	End:	22:49:12	
z:	6435.0	C: 63.8	dB			

# Mocomp Counters

Mocomp C	ounters		CPA (UCT):	
			Alt:	0 ft (GPS)
Start:	367315	00059AD3h	Lat: N	0:00: 0
End:	377098	0005C10Ah	Lon: E	0:00: 0

27 Jun 1995 Time: 178:22:56:35

Post-line Data Sheet Time: 178:22
Line 7 Pass 6
Mission: Presque Isle DAY 3 Req.# 4 Tape: E1439

AIRCRAFT & CHANNEL DATA

Altitude CH 1 CH 2 CH 3 CH 4 Desired: 13500 ft Wave/Pol.: p-VV p-VH p-HV p-HH
Baro: 13334 ft s.d = 4 Swath Ctr Ang: 45.0° 45.0° 45.0° 45.0°
Slt. rng: 18003 ft Tgt Dep Ang: 45.0° 45.0° 45.0° 45.0°
Look: Right St rng (ft): 16466 16466 16466 16466 16466 16466 Depr Ang: 25.0° Des. trk: 0.0° Near Rng Dep: Far Rng Dep: 54.1° 54.1° 54.1° 54.1° 24.2° 24.2° 24.2° 24.2° Start Sq: 90.0° End Sq: 90.0° Atten (dB): 55.0 66.0 54.0 63.0 RMS Video (%FS) 19.0 12.5 16.4 14.7

WAYPOINTS

Latitude Longitude Line up: N 46:27.13 W 68:32.03 Main Target: IE

Line\_up: N 46:27.13 W 68:32.03 Main Target: IE
Start: N 46:39.12 W 68:32.03 Mocomp Point:
End: N 46:49.12 W 68:32.03 Lat: N 46:44.12
Long: W 68:28.98
From: N 30:02.59 W 68:32.03 Tgt Trk: 0.0 Tgt Vel:
To: N 63:21.83 W 68:32.03 Alt: 770.0 ft

0.0

RADAR PARAMETERS - for UVB

RTP Channel: 1

Resolution: N/A

Swath width: Single

RMS Time Constant: 2^7

Position Reference: ON

Atten. Tracking: OFF

Range Gate Delta: 0.0 ft

Azimuth Presum Rate: Presum6

TX Chirp Filename: CTL:U2B

Filter damping is Hi -> 10 sec

PRF Factor is FAST (262.5 kts)

Ave Gndspd: Real -> 250.7 kts

Mocomp Off for Chnl 1, 2, 3, 4

GPS Vel/Pos Reference

Adj Gnd Scene: 5000.0 ft

Range Tracking is OFF

Clutterlock Reference: OFF

RX Chirp Filename: CRLINOA

Ave Ref Vel -> .6 fps (s.d.= 1.0) Ave Fil Vel -> 1.8 fps (s.d.= .8)

Tape Footage Drive no.

 NML
 XMIT
 PWR
 AND BIAS

 X:
 -70.0
 Elevation:
 0.0°

 L:
 -70.0
 Azimuth:
 0.0°

 C:
 -70.0
 Pitch:
 0.0°

 Starting: 2630 ft Ending: 3873 ft (1)C: -70.0 P: 47.0 3873 ft (1)

 Vel Bias
 CAL Atten

 X: 1024.0
 X: 63.8 dB

 Y: -463.0
 L: 63.8 dB

 Z: 6435.0
 C: 63.8 dB

 LINE Map Time (UCT) Start: 22:56:35 End: 22:59:13

Mocomp Counters CPA (UCT): 00:00:00

Alt: Lat: N Lon: E Alt: 0 ft (GPS) Start: 394610 00060572h 0:00:0 End: 421111 00066CF7h 0:00: 0

27 Jun 1995 Tape: E1439 Post-line Data Sheet

Line 5

Mission: Presque Isle DAY 3 Req.# 3

Time: 178:23:06:45 Pass 7

0.0

### AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	13500 ft 13266 ft s.d = 18003 ft Right	Wave/Pol.: 4 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 45.0° 45.0° 16466	CH 2 p-VH 45.0° 45.0° 16466	CH 3 p-HV 45.0° 45.0° 16466	CH 4 p-HH 45.0° 45.0° 16466
Depr Ang:	25.0°	Near Rng Dep:	53.7°	53.7°	53.7°	53.7°
Des. trk:	180.0°	Far Rng Dep:	24.0°	24.0°	24.0°	24.0°
Start Sq:	90.0°	Atten (dB):	51.0	64.0	50.0	61.0
End Sq:		RMS Video (%FS)	29.0	13.2	24.3	16.9

### WAYPOINTS

Latitude Longitude Line up: N 47:01.12 W 68:25.93 Main Target: IE Start: N 46:49.12 W 68:25.93 Mocomp Point:

End: N 46:39.12 W 68:25.93 Lat: N 46:44.12

Long: W 68:28.98 Tgt Trk: 0.0 Tgt Vel:

From: N 63:21.83 W 68:25.93 N 30:02.59 W 68:25.93 Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 254.4 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft ().0 ft Range Gate Delta: Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF

RX Chirp Filename: CRL1NOA

CPA (UCT): 00:00:00

Ave Ref Vel -> 1.6 fps (s.d.= 1.2) Ave Fil Vel -> 2.2 fps (s.d.= .9)

TX Chirp Filename: CTL.U2B

NML XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
X: -70.0	Elevat:on:	0.0°	_	_	
L: -70.0	Azimuth:	0.0°	Starting:	3888 ft	(1)
C: -70.0	Pitch:	0.0°	Ending:	5113 ft	(1)

P: 47.2

Vel Bias CAL Atten LINE Map Time (UCT) X: 63.8 dB Start: 23:06:45 1024.0 X: **Y:** -463.0 L: 63.8 dB End: 23:09:22 Z: 6435.0 C: 63.8 dB

# Mocomp Counters

Alt: 0 ft (GPS) 452624 0006]]810h Lat: N 0:00: 0 Start: End: 478957 0007.EEDh Lon: E 0:00: 0

27 Jun 1995 Post-line Data Sheet Time: 178:23:19:10

Tape: E1439 Line 9 Pass 8 Mission: Presque Isle DAY 3 Req.# 5

### AIRCRAFT & CHANNEL DATA

Altitude	•		CH 1	CH 2	<b>CH</b> 3	CH 4
Desired:	13500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	р-НН
Baro:	13314  ft s.d =	3 Swath Ctr Ang:	45.0°	45.0°	45.0°	45.0°
Slt. rng:	18003 ft	Tgt Dep Ang:	45.0°	45.0°	45.0°	45.0°
Look:	Right	St rng (ft):	16466	16466	16466	16466
Depr Ang:	25.0°	Near Rng Dep:	54.0°	54.0°	54.0°	54.0°
Des. trk:	270.0°	Far Rng Dep:	24.1°	24.1°	24.1°	24.1°
Start Sq:	90.0°	Atten (dB):	54.0	64.0	55.0	61.0
End Sq:	90.0°	RMS Video (%FS)	25.8	22.4	18.5	19.6

#### WAYPOINTS

	Latitude	Longitude	
Line_up:	N 46:41.98	W 68:04.28	Main Target: IE

Start: N 46:42.02 W 68:21.71 Mocomp Point: N 46:42.02 W End: 68:36.25 Lat: N 46:44.12

Long: W 68:28.98 From: Tgt Trk: 0.0 Tgt Vel:

N 44:13.17 W 44:58.54 N 44:13.17 W 91:59.42 Alt: 770.0 ft To:

# RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 251.8 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft

0.0

Range Gate Delta: 0.0 ft Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> .9 fps (s.d.= 1.1) Ave Fil Vel  $\rightarrow$  2.4 fps (s.d.= .9)

NML XMIT PWR	ANT BIAS		Tape Footage	Drive no.
X: -70.0	Elevat on:	0.0°		

Azimuth: 0.0° Pitch: 0.0° L: -70.0 Starting: 5128 ft (1)C: -70.0 Ending: 6384 ft (1)

P: 47.2

Vel Bias CAll Atten LINE Map Time (UCT) X: 1024.0 Start: 23:19:10 X: 63.8 dB Y: -463.0 L: 63.8 dB End: 23:21:52 C: 63.8 dB Z: 6435.0

Mocomp Counters CPA (UCT): 00:00:00

Alt: 0 ft (GPS) Start: 500974 0007A4EEh Lat: N 0:00: 0 End: Lon: E 528135 00080F07h 0:00: 0

Post-line Data Sheet 27 Jun 1995 Time: 178:23:30:01

Tape: E1439 Line 11 Pass 9 Mission: Presque Isle DAY 3 Req.# 6

### AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	13500 ft 13297 ft s.d = 18003 ft Right	Wave/Pol.: 4 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 45.0° 45.0° 16466	CH 2 p-VH 45.0° 45.0° 16466	CH 3 p-HV 45.0° 45.0° 16466	CH 4 p-HH 45.0° 45.0° 16466
Depr Ang:	25.0°	Near Rng Dep:	53.9°	53.9°	53.9°	53.9°
Des. trk:	90.0°	Far Rng Dep:	24.1°	24.1°	24.1°	24.1°
Start Sq:	90.0°	Atten (dB): RMS Video (%FS)	54.0	67.0	55.0	63.0
End Sq:	90.0°		24.1	11.8	16.3	15.9

#### WAYPOINTS

	Latitu	.de 🗀	ongitude			
Line_up:	N 46:46	.17 W	68:53.71	Main Ta	rget	: IE
Start:	N 46:46	.21 W	68:36.25	Mocomp	Poi	nt:
End:	N 46:46	.21 W	68:21.71	Lat:	N	46:44.12
				Long:	W	68:28.98
_						

From: N 44:17.01 W 92:01.04 To: N 44:17.01 W 44:56.92 Tgt Trk: 0.0 Tgt Vel: 0.0 Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 252.0 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: Range Tracking is OFF 0.0 ft Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTLLU2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> .4 fps (s.d.= 2.3) Ave Fil Vel -> .7 fps (s.d.=

NML X	MIT PWR	ANT BIAS		Tape Foot	tage	Drive no.
X: -	70.0	Elevaton:	0.0°	-		
L: -	70.0	Azimuth:	0.0°	Starting:	6399 ft	(1)
C: -	70.0	Pitch:	0.0°	Ending:	7645 ft	(1)
P:	47.2			_		• •

Vel Bias	CAll Atten	LINE Map Time (UCT)
X: 1024.0	X: 63.8 dB	Start: 23:30:01
Y: -463.0	L: 63.8 dB	End: 23:32:39
7 6435 0	C. 63 9 dB	

#### Mocomp Counters

Mocomp Counters		CPA (UCT):	00:00:00	
			Alt:	0 ft (GPS)
Start:	558847	000886FFh	Lat: N	0:00: 0
End:	585317	00081:E65h	Lon: E	0:00: 0

27 Jun 1995

Post-line Data Sheet

Time: 178:23:41:40

Pass 10

CPA (UCT): 00:00:00

Tape: E1439

Line 13 Mission: Presque Isle DAY 3 Req.#

### AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	13500 ft 13315 ft s.d = 17961 ft Right	Wave/Pol.: 5 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 45.0° 45.0° 16424	CH 2 p-VH 45.0° 45.0° 16424	CH 3 p-HV 45.0° 45.0° 16424	CH 4 p-HH 45.0° 45.0° 16424
Depr Ang:	25.0°	Near Rng Dep:	54.2°	54.2°	54.2°	54.2°
Des. trk:	276.0°	Far Rng Dep:	24.1°	24.1°	24.1°	24.1°
Start Sq:	90.0°	Atten (dB): RMS Video (%FS)	55.0	65.0	55.0	61.0
End Sq:	90.0°		21.7	13.5	16.9	19.0

### WAYPOINTS

Latitude Longitude

Main Target: CALCS Line up: N 46:40.39 W 68:04.74 Start: N 46:41.68 W 68:22.07 Mocomp Point: End: N 46:42.73 W 68:36.53 Lat: N 46:44.29

Long: W 68:28.98 From: N 42:36.03 W 45:45.85 Tgt Trk: 0.0 Tgt Vel: 0.0 N 45:53.35 W 92:35.40 Alt: 800.0 ft To:

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec PRF Factor is FAST (262.5 kts) Resolution: N/A Swath width: Single Ave Gndspd: Real -> 251.0 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Tracking is OFF Range Gate Delta: ().0 ft Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -.8 fps (s.d.= 1.5) Ave Fil Vel -> .6 fps; (s.d.= 1.2)

NML XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
X: -70.0	Elevat: on:	0.0°			
L: -70.0	Azimuth:	0.0°	Starting:	7660 ft	(1)
C: -70.0	Pitch:	0.0°	Ending:	8928 ft	(1)
P: 47.1					

Vel Bias CAll Atten LINE Map Time (UCT) X: 1024.0 Start: 23:41:40 X: 63.8 dB 63.8 dB End: 23:44:21 **Y**: -463.0 L: z:6435.0 C: 63.8 dB

### Mocomp Counters

Alt: 0 ft (GPS) 622168 0009"E58h Lat: N 0:00: 0 Start: Lon: E 0:00: 0 End: 649162 0009]]7CAh

Line 15 Pass 11
Mission: Presque Isle DAY 3 Req.# 8

### AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9862 ft s.d = 18460 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.6°	35.6°	35.6°	35.6°
Des. trk:	180.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	52.0	65.0	51.0	61.0
End Sq:	90.0°	RMS Video (%FS)	23.8	12.0	18.6	15.1

#### WAYPOINTS

	Latitude		ongitude	
Line_up:	N 47:01.12	W	68:25.15	Main Target: IE
Start:	N 46:49.12	W	68:25.15	Mocomp Point:
End:	N 46:39.12	W	68:25.15	Lat: N 46:44.12
				Long: W 68:28.98

From: N 63:21.83 W 68:25.15 Tgt Trk: 0.0 Tgt Vel: 0.0 To: N 30:02.59 W 68:25.15 Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 251.7 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: ().0 ft Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel  $\rightarrow$  -4.7 fps (s.d.= .6) Ave Fil Vel  $\rightarrow$  -4.7 fps (s.d.= .5)

IMN	XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
L: C:	-70.0 -70.0 -70.0 -70.0	Elevat.on: Azimuth: Pitch:	0.0° 0.0°	Starting: Ending:	8942 f 10185 f	- \ \ - /
Ve	ol Bias	CA: Atten		LINE Man	Time (IIC	TT \

CPA (UCT): 00:00:00

Vel Bias	CAll Atten	LINE Map T	ime (UCT)
X: 1024.0	X: 63.8 dB	Start: 2	3:53:19
Y: -463.0	L: 63.8 dB	End: 2	3:55:59
7. 6435 0	C 63 8 dB		

### Mocomp Counters

 Start:
 667010 000A::D82h
 Lat: N 0:00: 0

 End:
 693841 000A::651h
 Lon: E 0:00: 0

28 Jun 1995 Post-line Data Sheet Time: 179:00:04:13

Tape: E1440 Line 17 Pass 12 Mission: Presque Isle DAY 3 Req.# 9

## AIRCRAFT & CHANNEL DATA

CH 1 CH 2 CH 3 CH 4 Altitude p-VH p-HV VV-q HH-q Wave/Pol.: Desired: 10000 ft 9894 ft s.d = 4 Swath Ctr Ang: 30.0° 30.0° 30.0° 30.0° Baro: Tgt Dep Ang: St rng (ft): Slt. rng: 18460 ft 30.0° 30.0° 30.0° 30.0° St rng (ft): 16922 16922 16922 16922 Look: Right Near Rng Dep: Depr Ang: 25.0° 35.8° 35.8° 35.8° 35.8° 0.0° 17.4° 17.4° 17.4° 17.4° Far Rng Dep: Des. trk: 90.0° 90.0° 68.0 51.0 67.0 Start Sq: Atten (dB): 52.0 RMS Video (%FS) 23.9 9.9 19.6 11.1 End Sq:

#### WAYPOINTS

Latitude Longitude
Line\_up: N 46:27.13 W 68:32.80 Main Target: IE
Start: N 46:39.12 W 68:32.80 Mocomp Point:

End: N 46:49.12 W 68:32.80 Lat: N 46:44.12 Long: W 68:28.98

From: N 30:02.59 W 68:32.80 Tgt Trk: 0.0 Tgt Vel: 0.0

To: N 63:21.83 W 68:32.80 Alt: 770.0 ft

# RADAR PARAMETERS - for UVB

RTP Channel: 1

Resolution: N/A

Swath width: Single

RMS Time Constant: 2^7

Position Reference: ON
Atten. Tracking: OFF

Filter damping is Hi -> 10 sec

PRF Factor is FAST (262.5 kts)

Ave Gndspd: Real -> 254.9 kts

Mocomp Off for Chnl 1, 2, 3, 4

GPS Vel/Pos Reference

Adj Gnd Scene: 5000.0 ft

Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL:U2A

Range Gate Delta: 0.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRLINOA

Ave Ref Vel -> .7 fps (s.d.= 1.4) Ave Fil Vel -> 1.4 fps (s.d.= 1.1)

NML XMIT PWR AND BIAS Tape Footage Drive no. X: -70.0 Elevation: 0.0°

L: -70.0 Azimuth: 0.0° Starting: 200 ft (2) C: -70.0 Pitch: 0.0° Ending: 1434 ft (2)

P: 46.4

 Vel Bias
 CAL Atten
 LINE Map Time (UCT)

 X: 1024.0
 X: 63.8 dB
 Start: 00:04:13

 Y: -463.0
 L: 63.8 dB
 End: 00:06:46

 Z: 6435.0
 C: 63.8 dB

Mocomp Counters CPA (UCT): 00:00:00

Alt: 0 ft (GPS)
Start: 726024 000B:.408h Lat: N 0:00: 0
End: 751689 000B''849h Lon: E 0:00: 0

28 Jun 1995 Post-line Data Sheet Time: 179:00:17:57

Tape: E1440 Line 19 Pass 13
Mission: Presque Isle DAY 3 Req.# 10

### AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	<b>CH</b> 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9883 ft s.d =	3 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	18460 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	16922	16922	16922	16922
Depr Ang:	25.0°	Near Rng Dep:	35.7°	35.7°	35.7°	35.7°
Des. trk:	270.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	54.0	63.0	53.0	65.0
End Sq:	90.0°	RMS Video (%FS)	19.9	14.4	18.2	13.4

### WAYPOINTS

Latitude Longitude
Line\_up: N 46:41.44 W 68:04.28 Main Target: IE

Start: N 46:41.48 W 68:21.71 Mocomp Point: End: N 46:41.48 W 68:36.25 Lat: N 46:44.12

Long: W 68:28.98 From: N 44:12.68 W 44:58.75 Tgt Trk: 0.0 Tgt Vel:

To: N 44:12.68 W 91:59.21 Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts)
Swath width: Single Ave Gndspd: Real -> 249.7 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON GPS Vel/Pos Reference Adj Gnd Scene: 5000.0 ft Range Gate Delta: 0.0 ft Range Tracking is OFF

0.0

Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTLLU2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -9.5 fps (s.d.= 7.1) Ave Fil Vel -> -7.9 fps (s.d.= 6.9)

NML XMIT PWR	ANT BIAS		Tape	Footage	Drive no.
X: -70.0	Elevation:	0.0°			

L: -70.0 Azimuth: 0.0° Starting: 1448 ft (2) C: -70.0 Pitch: 0.0° Ending: 2692 ft (2)

P: 46.8

CAll Atten Vel Bias LINE Map Time (UCT) X: 1024.0 X: 63.8 dB Start: 00:17:57 **Y**: -463.0 L: 63.8 dB End: 00:20:37 6435.0 C: 63.8 dB **Z**:

Mocomp Counters CPA (UCT): 00:00:00

Alt: 0 ft (GPS)
Start: 784368 000B]'7F0h Lat: N 0:00: 0
End: 811200 000CG0C0h Lon: E 0:00: 0

28 Jun 1995

Post-line Data Sheet

Time: 179:00:27:52 Pass 14

0.0

Tape: E1440

Line 21 Mission: Presque Isle DAY 3 Req.# 11

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH

Baro: 9875 ft s.d = 3 Swath Ctr Ang: 30.0° 30.0° 30.0° 30.0° Slt. rng: 18460 ft 30.0° Tgt Dep Ang: St rng (ft): 30.0° 30.0° 30.0° 16922 16922 16922 16922 Look: Right

25.0° 90.0° Near Rng Dep: 35.7° 35.7° Depr Ang: 35.7° 35.7° Des. trk: Far Rng Dep: 17.4° 17.4° 17.4° 17.4°

90.0° 90.0° 66.0 Atten (dB): 51.0 63.0 51.0 Start Sq: RMS Video (%FS) 23.8 11.5 17.1 11.8 End Sq:

WAYPOINTS

Latitude Longitude

Line\_up: N 46:46.70 W 68:53.71 Start: N 46:46.74 W 68:36.25 Main Target: IE Mocomp Point:

End: N 46:46.74 W 68:21.71 Lat: N 46:44.12

Long: W 68:28.98 Tgt Trk: 0.0 Tgt Vel:

From: N 44:17.50 W 92:01.25 Alt: 770.0 ft To: N 44:17.50 W 44:56.71

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec PRF Factor is FAST (262.5 kts) Resolution: N/A

Swath width: Single

PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 250.0 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference RMS Time Constant: 2^7 Position Reference: ON

Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft

Range Gate Delta: 0.0 ft Range Tracking is OFF
Azimuth Presum Rate: Presum6 Clutterlock Reference:
TX Chirp Filename: CTL U2B RX Chirp Filename: CRI Clutterlock Reference: OFF TX Chirp Filename: CTL U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 2.0 fps; (s.d.= 4.2) Ave Fil Vel -> 1.3 fps (s.d.= 3.9)

ANT BIAS Tape Footage NML XMIT PWR Drive no.

0.0° X: -70.0Elevat:.on: Starting: Azimuth: 0.0° L: -70.0 2706 ft (2) C: -70.0 Ending: Pitch: 0.0° 3963 ft (2)

P: 46.6

Vel Bias CAL Atten LINE Map Time (UCT) X: 63.8 dL L: 63.8 dB C: 63.8 dB X: 1024.0 Start: 00:27:52 End: 00:30:31

Y: -463.0 Z: 6435.0

CPA (UCT): 00:00:00 Mocomp Counters

Alt: 0 ft (GPS) Lat: N 0:00:0 835044 000CBDE4h Start: Lon: E 0:00:0 End: 861712 000D::610h

28 Jun 1995 Tape: E1440 Post-line Data Sheet

Time: 179:00:39:17

Line

Mission: Presque Isle DAY 3 Req.#

23

Pass 15

### AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9889 ft s.d = 18400 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16861	CH 2 p-VH 30.0° 30.0° 16861	CH 3 p-HV 30.0° 30.0° 16861	CH 4 p-HH 30.0° 30.0° 16861
Depr Ang:	25.0°	Near Rng Dep:	35.9°	35.9°	35.9°	35.9°
Des. trk:	276.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	55.0	63.0	54.0	66.0
End Sq:	90.0°	RMS Video (%FS)	18.3	13.6	17.0	18.2

#### WAYPOINTS

Latitude Longitude

Line up: N 46:39.86 W 68:04.82 Main Target: CALCS N 46:41.15 W Start: 68:22.15 Mocomp Point:

Lat: N 46:44.29 End: N 46:42.20 W 68:36.61 Long: W 68:28.98

From: N 42:35.56 W 45:46.11 To: N 45:52.85 W 92:35.25 Tgt Trk: 0.0 Tgt Vel: 0.0

Alt: 800.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> PRF Factor is FAST (262.5 kts) Resolution: N/A Swath width: Single Ave Gndspd: Real -> 251.6 kts Mocomp Off for Chnl 1, 2, 3, 4 RMS Time Constant: 2^7 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft

Range Tracking is OFF Range Gate Delta: 0.0 ft Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 2.6 fps (s.d.= .8) Ave Fil Vel -> 3.9 fps (s.d.= .8)

NML XMIT PWR ANT BIAS Tape Footage Drive no. 0.0° X: -70.0Elevat..on:

CPA (UCT): 00:00:00

Starting: L: -70.0 Azimuth: 0.0° 3976 ft (2)C: -70.0 0.0° Pitch: Ending: 5250 ft (2)

P: 46.6

Vel Bias CAll Atten LINE Map Time (UCT) X: 63.8 dB Start: 00:39:17 X: 1024.0 L: 63.8 dB **Y:** -463.0 End: 00:41:59 z:6435.0 C: 63.8 dB

Mocomp Counters

Alt: 0 ft (GPS) 893597 000Di.29Dh Lat: N 0:00: 0 Start: Lon: E 0:00: 0 End: 920725 000E0C95h

28 Jun 1995 Post-line Data Sheet Time: 179:00:52:00

Tape: E1440 Line 25 Pass 16
Mission: Presque Isle DAY 3 Req.# 13

### AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	VV-q	p-VH	p-HV	p-HH
Baro:	9900 ft s.d =	2 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	18460 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	16922	16922	16922	16922
Depr Ang:	25.0°	Near Rng Dep:	35.8°	35.8°	35.8°	35.8°
Des. trk:	30.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	51.0	63.0	52.0	67.0
End Sq:	90.0°	RMS Video (%FS)	29.2	13.6	21.4	13.8

#### WAYPOINTS

	]	Latitude	3.4	ongitude			
Line_up:	N	46:30.71	W	68:44.60	Main	Target:	ΙE

Start: N 46:41.11 W 68:35.93 Mocomp Point: End: N 46:49.77 W 68:28.66 Lat: N 46:44.12 Long: W 68:28.98

From: N 31:49.89 W 78:14.04 Tgt Trk: 0.0 Tgt Vel: 0.0 To: N 60:12.77 W 51:51.23 Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts)
Swath width: Single Ave Gndspd: Real -> 250.7 kts
RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON GPS Vel/Pos Reference
Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft

Range Gate Delta: 0.0 ft Range Tracking is OFF
Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF
TX Chirp Filename: CTL U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 3.0 fps (s.d.= 9.8) Ave Fil Vel -> 3.2 fps (s.d.= 9.3)

NML XMIT PWR	ANT BIAS		Tape Fo	otage		Drive no.
X: -70.0	Elevation:	0.0°	_	_		
T - 70 0	7	0 0 0	C++	E2.62	e+	(0)

L: -70.0 Azimuth: 0.0° Starting: 5263 ft (2) C: -70.0 Pitch: 0.0° Ending: 6520 ft (2)

P: 46.6

 Vel Bias
 CAL Atten
 LINE Map Time (UCT)

 X: 1024.0
 X: 63.8 dB
 Start: 00:52:00

 Y: -463.0
 L: 63.8 dB
 End: 00:54:41

 Z: 6435.0
 C: 63.8 dB

Mocomp Counters CPA (UCT): 00:00:00

Alt: 0 ft (GPS)
Start: 956073 000E96A9h Lat: N 0:00: 0
End: 983072 000F0020h Lon: E 0:00: 0

28 Jun 1995 Post-line Data Sheet Time: 179:01:02:43

Tape: E1440 Line 27 Pass 17
Mission: Presque Isle DAY 3 Req.# 14

# AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9876 ft s.d = 18460 ft Right	Wave/Pol.: 4 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.7°	35.7°	35.7°	35.7°
Des. trk:	210.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB): RMS Video (%FS)	51.0	60.0	52.0	60.0
End Sq:	90.0°		26.3	14.7	17.9	18.0

#### WAYPOINTS

	Latitude	3.	ongitude	
Line_up:	N 46:57.51	W	68:13.24	Main Target: IE
Start:	N 46:47.13	W	68:22.02	Mocomp Point:
End:	N 46:38.47	W	68:29.28	Lat: N 46:44.12

Long: W 68:28.98

From: N 60:10.02 W 51:45.39 Tgt Trk: 0.0 Tgt Vel: 0.0

To: N 31:47.42 W 78:07.50 Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec PRF Factor is FAST (262.5 kts) Resolution: N/A Swath width: Single Ave Gndspd: Real -> 253.1 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Adj Gnd Scene: 5000.0 ft Atten. Tracking: OFF Range Tracking is OFF Range Gate Delta: Clutterlock Reference: OFF Azimuth Presum Rate: Presum6 RX Chirp Filename: CRL1NOA TX Chirp Filename: CTL:U2B

Ave Ref Vel -> .3 fps (s.d.= 1.1) Ave Fil Vel -> 3.8 fps (s.d.= 1.1)

NML XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
X: -70.0 L: -70.0 C: -70.0 P: 46.5	Elevathon: Azimuth: Pitch:	0.0° 0.0°	Starting: Ending:	6533 7794	(2) (2)

CPA (UCT): 00:00:00

 Vel Bias
 CAL Atten
 LINE Map Time (UCT)

 X: 2079.0
 X: 63.8 dB
 Start: 01:02:43

 Y: 1867.0
 L: 63.8 dB
 End: 01:05:23

 Z: 17142.0
 C: 63.8 dB

### Mocomp Counters

Alt: 0 ft (GPS)
Start: 1010451 000F6B13h Lat: N 0:00: 0
End: 1037274 000FD3DAh Lon: E 0:00: 0

28 Jun 1995

Post-line Data Sheet Line 25

Time: 179:01:13:19 Pass 18

Tape: E1440

Mission: Presque Isle DAY 3 Reg.# 13

### AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9902 ft s.d = 18460 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.8°	35.8°	35.8°	35.8°
Des. trk:	30.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	52.0	67.0	52.0	66.0
End Sq:	90.0°	RMS Video (%FS)	22.2	12.8	18.7	13.7

#### WAYPOINTS

Latitude Longitude Line up: N 46:30.71 W 68:44.60 Main Target: IE Start: N 46:41.11 W 68:35.93 Mocomp Point: End: N 46:49.77 W 68:28.66 Lat: N 46:44.12 Long: W 68:28.98

From: N 31:49.89 W Tgt Trk: 0.0 Tgt Vel: 78:14.04 0.0

To: N 60:12.77 W 51:51.23 Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 248.8 kts Mocomp Off for Chnl 1, 2, 3, 4 RMS Time Constant: 2^7 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: Range Tracking is OFF 0.0 ft Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 4.7 fps (s.d.= 3.6) Ave Fil Vel -> 8.6 fps (s.d.=

NML XM	IT PWR	ANT BIAS		Tape Foot	age	Drive no.
X: -70	0.0 El	evation: (	0.0°	_	_	
L: -70	0.0 Az	imuth: (	0.0°	Starting:	7808 ft	(2)
C: -70	0.0 Pi	tch:	0.0°	Ending:	9083 ft	(2)
P: 46	5.5					

CPA (UCT): 00:00:00

Vel Bias CAl Atten LINE Map Time (UCT) X: 2079.0 X: 63.8 dB Start: 01:13:19 Y: 1867.0 L: 63.8 dB End: 01:16:01 Z: 17142.0 C: 63.8 dB

### Mocomp Counters

Alt: 0 ft (GPS) Lat: N Start: 1066285 0010452Dh 0:00:0 1093454 0010AF4Eh End: Lon: E 0:00: 0

Post-line Data Sheet 28 Jun 1995 Time: 179:01:26:37

Line Tape: E1440 29 Pass 19 Mission: Presque Isle DAY 3 Reg.# 15

### AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9886 ft s.d = 18460 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.7°	35.7°	35.7°	35.7°
Des. trk:	120.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	52.0	59.0	51.0	60.0
End Sq:		RMS Video (%FS)	25.6	25.7	20.4	26.1

#### WAYPOINTS

Latitude Longitude Line up: N 46:54.86 W 68:48.54 Main Target: IE Start: N 46:48.89 W 68:33.37 Mocomp Point:

End: N 46:43.89 W 68:20.78 Lat: N 46:44.12

Long: W 68:28.98

From: N 52:47.33 W Tgt Trk: 0.0 Tgt Vel: 92:35.12 0.0

To: N 36:51.34 W 50:24.96 Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 248.4 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: ().0 ft Range Tracking is OFF

Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTLLU2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -1.5 fps (s.d.= Ave Fil Vel -> 2.5 fps (s.d.= .9)

NML XMIT PWR	ANT BIAS		Tape F	ootage	Drive no.
X: -70.0	Elevat.on:	0.0°	_	_	
T	2 - 2 1 2		m 1 1 1		

0.0° Starting: Ending: L: -70.0 Azimuth: 9097 ft (2) C: -70.0Pitch: 0.0° 10356 ft (2)

P: 46.5

Vel Bias CAL Atten LINE Map Time (UCT) X: 2079.0 X: 63.8 dB Start: 01:26:37 Y: 1867.0 L: 63.8 dB End: 01:29:21 Z: 17142.0 C: 63.8 dB

Mocomp Counters CPA (UCT): 00:00:00

Alt: 0 ft (GPS) 0:00: 0 Start: 1131299 00114323h Lat: N Lon: E End: 1158804 0011/E94h 0:00:0

28 Jun 1995

Post-line Data Sheet Line 31 Time: 179:01:36:25 Pass 20

Tape: 1441

Mission: Presque Isle DAY 3 Req.#

Reg.# 16

### AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9900 ft s.d = 18460 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.8°	35.8°	35.8°	35.8°
Des. trk:	300.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	57.0	61.0	57.0	64.0
End Sq:	90.0°	RMS Video (%FS)	22.3	18.2	19.9	15.8

# WAYPOINTS

Longitude Latitude Line up: N 46:33.32 W 68:09.55 Main Target: IE Mocomp Point: Start: N 46:39.35 W 68:24.60 End: N 46:44.34 W 68:37.19 Lat: N 46:44.12 Long: W 68:28.98 From: N 36:47.45 W 50:29.32 Tgt Trk: 0.0 Tgt Vel: 0.0 Alt: 770.0 ft To: N 52:42.60 W 92:36.70

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 252.0 kts Mocomp Off for Chnl 1, 2, 3, 4 RMS Time Constant: 2^7 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: 0.0 ft Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF RX Chirp Filename: CRL1NOA TX Chirp Filename: CTLLU2B

Ave Ref Vel -> -2.6 fps (s.d.= 3.4) Ave Fil Vel -> 1.1 fps (s.d.= 2.9)

L: 63.8 dB

C: 63.8 dB

NML XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
X: -70.0	Elevat:.on:	0.0°			
L: -70.0	Azimuth:	0.0°	Starting:	203 ft	(1)
C: -70.0	Pitch:	0.0°	Ending:	1460 ft	(1)
P: 46.6			_		
Vel Bias	CAll Atte	n	LINE Map	Time (UCT)	
X: 2079.0	X: 63.8			01:36:25	

End: 01:39:06

CPA (UCT): 00:00:00

Mocomp Counters

Z: 17142.0

1867.0

**Y**:

Alt: 0 ft (GPS)
Start: 1180490 0012034Ah Lat: N 0:00: 0
End: 1207494 00126CC6h Lon: E 0:00: 0

28 Jun 1995 | Post-line Data Sheet | Time: 179:03 | Tape: 1441 | Line 33 | Pass 21 | Req.# 17

Time: 179:01:49:45

# AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9900 ft s.d = 18460 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.8°	35.8°	35.8°	35.8°
Des. trk:	60.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	53.0	63.0	53.0	66.0
End Sq:	90.0°	RMS Video (%FS)	23.4	15.0	17.5	14.0

### WAYPOINTS

	Latitude	Longitude	
Line up:	N 46:37.87	W 68:52.25	Main Target: IE
Start:	N 46:43.90	W 68:37.18	Mocomp Point:
End:	N 46:48.90	W 68:24.59	Lat: N 46:44.12
			Long: W 68:28.98
From:	N 36:51.35	W 86:33.02	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 52:47.34	W 44:22.84	Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is FAST (262.5 kts)
Swath width: Single	Ave Gndspd: Real -> 247.2 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	GPS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTL:U2B	RX Chirp Filename: CRL1NOA
	_

Ave Ref Vel -> 3.3 fps (s.d.= 7.2) Ave Fil Vel -> 7.5 fps (s.d.= 6.8)

NML XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
X: -70.0	Elevat:on:	0.0°			
L: -70.0	Azimuth:	0.0°	Starting:	1476 ft	(1)
C: -70.0	Pitch:	0.0°	Ending:	2683 ft	(1)
P: 46.5			J		( /
77-3 ml	<b>63:</b> 344		T T1177 14	m' (*******	
Vel Bias	CAL Atte	n		Time (UCT)	
X: 2079.0	X: 63.8	dВ	Start:	01:49:45	
Y: 1867.0	L: 63.8	dB	End:	01:52:25	
Z: 17142.0	C: 63.8	dB			

CPA (UCT): 00:00:00

# Mocomp Counters

			Alt:		0 ft	(GPS)
Start:	1252216	0013:.B78h	Lat: N	1 0	):00:	0
End:	1279011	00138423h	Lon: E	: C	):00:	0

28 Jun 1995 Tape: 1441 Post-line Data Sheet

Line 35

Mission: Presque Isle DAY 3 Req.#

Time: 179:02:01:48

Pass 22 Reg.# 18

### AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9889 ft s.d = 18460 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.8°	35.8°	35.8°	35.8°
Des. trk:	240.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	51.0	61.0	49.0	66.0
End Sq:		RMS Video (%FS)	27.9	15.9	26.1	15.7

#### WAYPOINTS

Latitude Longitude

Line\_up: N 46:50.30 W 68:05.61 Main Target: IE Start: N 46:44.33 W 68:20.76 Mocomp Point:

End: N 46:39.33 W 68:33.35 Lat: N 46:44.12 Long: W 68:28.98

From: N 52:42.59 W 44:21.25 Tgt Trk: 0.0 Tgt Vel: 0.0

To: N 36:47.44 W 86:28.63 Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1

Resolution: N/A

Swath width: Single

RMS Time Constant: 2^7

Position Reference: ON

Atten. Tracking: OFF

Range Gate Delta:

PRF Factor is FAST (262.5 kts)

Ave Gndspd: Real -> 255.1 kts

Mocomp Off for Chnl 1, 2, 3, 4

GPS Vel/Pos Reference

Adj Gnd Scene: 5000.0 ft

Range Tracking is OFF

Range Gate Delta: 0.0 ft Range Tracking is OFF
Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF
TX Chirp Filename: CTL U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -2.6 fps (s.d.= 11.2) Ave Fil Vel -> .8 fps (s.d.= 10.7)

NML XMIT PWR	ANT BIAS	,	Tape Fo	ootage	Drive no.
X: -70.0	Elevaton:	0.0°			

L: -70.0 Azimuth: 0.0° Starting: 2697 ft (1) C: -70.0 Pitch: 0.0° Ending: 3902 ft (1)

P: 46.6

 Vel Bias
 CAL Atten
 LINE Map Time (UCT)

 X: 2079.0
 X: 63.8 dB
 Start: 02:01:48

 Y: 1867.0
 L: 63.8 dB
 End: 02:04:22

 Z: 17142.0
 C: 63.8 dB

Mocomp Counters CPA (UCT): 00:00:00

Alt: 0 ft (GPS)
Start: 1315361 0014:221h Lat: N 0:00: 0
End: 1341200 0014"710h Lon: E 0:00: 0

Post-line Data Sheet Time: 179:02:16:28 28 Jun 1995

Line 31 Tape: 1441

Pass 23 Mission: Presque Isle DAY 3 Req.# 16

### AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro:	10000 ft 9903 ft s.d =	Wave/Pol.: 2 Swath Ctr Ang:	CH 1 p-VV 30.0°	CH 2 p-VH 30.0°	CH 3 p-HV 30.0°	CH 4 p-HH 30.0°
Slt. rng: Look:	18460 ft Right	Tgt Dep Ang: St rng (ft):	30.0° 16922	30.0° 16922	30.0° 16922	30.0° 16922
	25.0°	Near Rng Dep:	35.8°	35.8°	35.8°	35.8°
Depr Ang: Des. trk:	300.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq: End Sq:	90.0° 90.0°	Atten (dB): RMS Video (%FS)	55.0 23.3	60.0 15.8	54.0 21.9	65.0 12.4

### WAYPOINTS

	Latitude	Longitude	·
Line_up:	N 46:33.32	W 68:09.55	Main Target: IE
Start:	N 46:39.35	W 68:24.60	Mocomp Point:
End:	N 46:44.34	W 68:37.19	Lat: N 46:44.12

Long: W 68:28.98 From: N 36:47.45 W 50:29.32 Tgt Trk: 0.0 Tgt Vel:

Alt: 770.0 ft To: N 52:42.60 W 92:36.70

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 247.4 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: ().0 ft Range Tracking is OFF

Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF RX Chirp Filename: CRL1NOA TX Chirp Filename: CTL.U2B

Ave Ref Vel -> 5.3 fps (s.d.= 9.6) Ave Fil Vel -> 8.9 fps (s.d.= 9.0)

NML XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
X: -70.0	Elevat:.on:	0.0°			
L: -70.0	Azimuth:	0.0°	Starting:	3918 ft	(1)
C: -70.0	Pitch:	0.0°	Ending:	5121 ft	(1)
P: 46.7			_		

CPA (UCT): 00:00:00

LINE Map Time (UCT) Vel Bias CAll Atten X: 2079.0 X: 63.8 dB Start: 02:16:28 L: 63.8 dB Y: 1867.0 End: 02:19:09

C: 63.8 dB

### Mocomp Counters

Z: 17142.0

Alt: 0 ft (GPS) Lat: N 0:00: 0 Start: 1366879 0014DB5Fh 1393891 001544E3h Lon: E End: 0:00: 0

28 Jun 1995 Post-line Data Sheet Time: 179:02:38:13

Tape: 1441 Line 41 Pass 24
Mission: Presque Isle DAY 3 Req.# 22

### AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	6000 ft	Wave/Pol.:	p-vv	p-VH	p-HV	p-HH
Baro:	5940  ft s.d =	3 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	20207 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	18672	18672	18672	18672
Depr Ang:	25.0°	Near Rng Dep:	18.6°	18.6°	18.6°	18.6°
Des. trk:	180.0°	Far Rng Dep:	9.8°	9.8°	9.8°	9.8°
Start Sq:	90.0°	Atten (dB):	48.0	55.0	48.0	57.0
End Sq:	90.0°	RMS Video (%FS)	25.4	14.6	18.5	19.0

### WAYPOINTS

	Latitude	Longitude	
Line_up:	N 47:01.12	W 68:24.31	Main Target: IE
Start:	N 46:49.12	W 68:24.31	Mocomp Point:
End:	N 46:39.12	W 68:24.31	Lat: N 46:44.12
			Long. W 68.28 98

Long: W 68:28.98

From: N 63:21.83 W 68:24.31 Tgt Trk: 0.0 Tgt Vel: 0.0

To: N 30:02.59 W 68:24.31 Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 249.8 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -1.2 fps (s.d.= 6.4) Ave Fil Vel -> .6 fps (s.d.= 6.0)

X: -70.0 Elevation: 0.0°	-	
L: -70.0 Azimuth: 0.0° Starting C: -70.0 Pitch: 0.0° Ending: P: 46.5	5136 6402	(1) (1)

CPA (UCT): 00:00:00

 Vel Bias
 CAL Atten
 LINE Map Time (UCT)

 X: 2079.0
 X: 63.8 dB
 Start: 02:38:13

 Y: 1867.0
 L: 63.8 dB
 End: 02:40:53

 Z: 17142.0
 C: 63.8 dB

### Mocomp Counters

 Start:
 1449751
 0016 F17h
 Lat: N
 0:00: 0

 End:
 1476593
 001687F1h
 Lon: E
 0:00: 0

28 Jun 1995 | Post-line Data Sheet | Time: 179:02 | Tape: 1441 | Line 43 | Pass 25 | Req.# 23

Time: 179:02:48:11

# AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	6000 ft 5950 ft s.d = 20207 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 15.0° 15.0° 18672	CH 2 p-VH 15.0° 15.0° 18672	CH 3 p-HV 15.0° 15.0° 18672	CH 4 p-HH 15.0° 15.0° 18672
Depr Ang:	25.0°	Near Rng Dep:	18.6°	18.6°	18.6°	18.6°
Des. trk:	0.0°	Far Rng Dep:	9.8°	9.8°	9.8°	9.8°
Start Sq:	90.0°	Atten (dB):	53.0	73.0	54.0	73.0
End Sq:	90.0°	RMS Video (%FS)	17.7	6.1	12.2	5.6

# WAYPOINTS

	Latitude	Longitude	
Line up:	N 46:27.13	W 68:33.65	Main Target: IE
Start:	N 46:39.12	W 68:33.65	Mocomp Point:
End:	N 46:49.12	W 68:33.65	Lat: N 46:44.12
			Long: W 68:28.98
From:	N 30:02.59	W 68:33.65	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 63:21.83	W 68:33.65	Alt: 770.0 ft

# RADAR PARAMETERS - for UVB

RTP Channel: 1	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is FAST (262.5 kts)
Swath width: Single	Ave Gndspd: Real -> 251.7 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	GPS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTL:U2B	RX Chirp Filename: CRL1NOA

Ave	Ref	Vel	->	-0.0	fps	(s.d.=	.9)
AVE	Fil	Vel	->	1.5	fng	(s.d.=	.81

NML XMIT PWR	ANT BIAS		Tape Fo	ootage	Drive no.
X: -70.0	Elevat: on:	0.0°			
L: -70.0	Azimuth:	0.0°	Starting:	6417 ft	(1)
C: -70.0	Pitch:	0.0°	Ending:	7650 ft	(1)
P: 46.4					, ,
Vel Bias	CA], Atte	n	LINE Map	Time (UCT)	
X: 2079.0	X: 63.8	dB		02:48:11	
Y: 1867.0	L: 63.8	dB	End:	02:50:47	
Z: 17142.0	C: 63.8	dB			

# Mocomp Counters

Mocomp	Counters		CPA (UCT): Alt:	00:00:00 0 ft (GPS)
Start: End:		0016]:A4Ch 0016]:4B9h	Lat: N Lon: E	

28 Jun 1995 Post-line Data Sheet Time: 179:02:48:26

Tape: 1441 Line 43 Pass 26
Mission: Presque Isle DAY 3 Req.# 23

# AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	6000 ft 5949 ft s.d = 20207 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 15.0° 15.0° 18672	CH 2 p-VH 15.0° 15.0° 18672	CH 3 p-HV 15.0° 15.0° 18672	CH 4 p-HH 15.0° 15.0° 18672
Depr Ang:	25.0°	Near Rng Dep:	18.6°	18.6°	18.6°	18.6°
Des. trk:	0.0°	Far Rng Dep:	9.8°	9.8°	9.8°	9.8°
Start Sq:	90.0°	Atten (dB):	53.0	70.0	54.0	70.0
End Sq:	90.0°	RMS Video (%FS)	15.3	6.0	10.8	6.3

#### WAYPOINTS

		Latitude	و ز	ongitude		
Line up:	N	46:27.13	W	68:33.65	Main Target: IE	
		46:39.12			Mocomp Point:	

End: N 46:49.12 W 68:33.65 Lat: N 46:44.12

Long: W 68:28.98

From: N 30:02.59 W 68:33.65 Tgt Trk: 0.0 Tgt Vel: 0.0 To: N 63:21.83 W 68:33.65 Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1

Resolution: N/A

Swath width: Single

RMS Time Constant: 2^7

Position Reference: ON

Atten. Tracking: OFF

RESOlution: N/A

Filter damping is Hi -> 10 sec

PRF Factor is FAST (262.5 kts)

Ave Gndspd: Real -> 251.8 kts

Mocomp Off for Chnl 1, 2, 3, 4

GPS Vel/Pos Reference

Adj Gnd Scene: 5000.0 ft

Regree Cate Polta: 0.0 ft

Range Gate Delta: 0.0 ft Range Tracking is OFF
Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF
TX Chirp Filename: CTL.U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 3.0 fps (s.d.= .9) Ave Fil Vel -> 4.7 fps (s.d.= .9)

NML XMIT PWR	ANT BIAS		Tape Foo	otage	Drive no.
X: -70.0	Elevat:on:	0.0°			
			<b>6</b> 1 1		CL (0)

L: -70.0 Azimuth: 0.0° Starting: 6417 ft (1) C: -70.0 Pitch: 0.0° Ending: 7650 ft (1)

P: 46.4

 Vel Bias
 CAN Atten
 LINE Map Time (UCT)

 X: 2079.0
 X: 63.8 dB
 Start: 02:48:26

 Y: 1867.0
 L: 63.8 dB
 End: 02:50:47

 Z: 17142.0
 C: 63.8 dB

Mocomp Counters CPA (UCT): 00:00:00

28 Jun 1995 Post-line Data Sheet
Tape: 1441 Line 45 Time: 179:03:02:38

Pass 27 Mission: Presque Isle DAY 3 Req.# 24

# AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	6000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5957  ft s.d =	3 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	20207 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	18672	18672	18672	18672
Depr Ang:	25.0°	Near Rng Dep:	18.6°	18.6°	18.6°	18.6°
Des. trk:	270.0°	Far Rng Dep:	9.9°	9.9°	9.9°	9.9°
Start Sq:	90.0°	Atten (dB):	58.0	62.0	58.0	62.0
End Sq:	90.0°	RMS Video (%FS)	9.8	9.4	7.7	10.6

### WAYPOINTS

	Latitude	1.	ongitude	
Line_up:	N 46:40.86	W	68:04.28	Main Target: IE
Start:	N 46:40.90	W	68:21.71	Mocomp Point:
End:	N 46:40.90	W	68:36.25	Lat: N 46:44.12
				Long: W 68:28.98
From:	N 44:12.15	W	44:58.97	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 44:12.15	W	91:58.99	Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Resolution: N/A Swath width: Single RMS Time Constant: 2^7 Position Reference: ON Atten. Tracking: OFF Range Gate Delta: 0.0 ft Azimuth Presum Rate: Presum6	Filter damping is Hi -> 10 sec PRF Factor is FAST (262.5 kts) Ave Gndspd: Real -> 250.2 kts Mocomp Off for Chnl 1, 2, 3, 4 GPS Vel/Pos Reference Adj Gnd Scene: 5000.0 ft Range Tracking is OFF Clutterlock Reference: OFF PV Chira Filename: CRIANOA
TX Chirp Filename: CTL:U2B	RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -1.8 fps (s.d.= .9) Ave Fil Vel -> -.4 fps (s.d.= .7)

L: 63.8 dB C: 63.8 dB

NML XMIT PWR	ANT BIAS		Tape Fo	ootage	Drive no.
X: -70.0	Elevat on:	0.0°			
L: -70.0	Azimuth:	0.0°	Starting:	7665 ft	(1)
C: -70.0 P: 46.2	Pitch:	0.0°	Ending:	8917 ft	(1)
Vel Bias	CA], Atte	n	LINE Map	Time (UCT)	
X: 2079.0	X: 63.8 (	đВ	Start:	03:02:38	
W. 1067 0	T - (2 0	3 D	The	00.05.15	

End: 03:05:17

CPA (UCT): 00:00:00

# Mocomp Counters

Y: 1867.0

Z: 17142.0

			Alt:		0 ft	(GPS)
Start:	1564287	0017DE7Fh	Lat:	N	0:00:	0
End:	1590796	00184:60Ch	Lon:	$\mathbf{E}$	0:00:	0

28 Jun 1995 Tape: 1441 Post-line Data Sheet

Line 47

Mission: Presque Isle DAY 3 Reg.# 25

Time: 179:03:13:11

Pass 28

#### AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	6000 ft 5947 ft s.d = 20207 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 15.0° 15.0° 18672	CH 2 p-VH 15.0° 15.0° 18672	CH 3 p-HV 15.0° 15.0° 18672	CH 4 p-HH 15.0° 15.0° 18672
Depr Ang:	25.0°	Near Rng Dep:	18.6°	18.6°	18.6°	18.6°
Des. trk:	90.0°	Far Rng Dep:	9.8°	9.8°	9.8°	9.8°
Start Sq:	90.0°	Atten (dB):	48.0	61.0	47.0	61.0
End Sq:	90.0°	RMS Video (%FS)	27.0	17.2	20.1	18.1

### WAYPOINTS

Latitude Longitude Line up: N 46:47.28 W 68:53.71 Main Target: IE Start: N 46:47.33 W 68:36.25 Mocomp Point: End: N 46:47.33 W 68:21.71 Lat: N 46:44.12 Long: W 68:28.98

From: N 44:18.04 W 92:01.47 Tgt Trk: 0.0 Tgt Vel: 0.0

To: N 44:18.04 W 44:56.49 Alt: 770.0 ft

### RADAR PARAMETERS - for UVB

Filter damping is Hi -> 10 sec RTP Channel: 1 Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 251.6 kts Mocomp Off for Chnl 1, 2, 3, 4 RMS Time Constant: 2^7 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6 Range Tracking is OFF Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 2.9 fps (s.d.= 8.6) Ave Fil Vel -> 4.9 fps (s.d.=

NML XMIT PWR	ANT BIAS		Tape Fo	ootage	Drive no
X: -70.0 L: -70.0 C: -70.0 P: 46.1	Elevathon: Azimuth: Pitch:	0.0° 0.0°	Starting: Ending:	8931 ft 10190 ft	\/

CPA (UCT): 00:00:00

Vel Bias CAll Atten CAll Atten
X: 63.8 dB LINE Map Time (UCT) X: 2079.0 Start: 03:13:11 Y: 1867.0 L: 63.8 dB End: 03:15:51 Z: 17142.0 C: 63.8 dB

### Mocomp Counters

Alt: 0 ft (GPS) 1616643 0018AB03h Lat: N 0:00: 0 Start: End: 1643480 0019:.3D8h Lon: E 0:00: 0

Time: 179:03:24:16

28 Jun 1995 | Post-line Data Sheet | Time: 179:03 | Tape: E1442 | Line 49 | Pass 29 | Mission: Presque Isle DAY 3 | Req.# 26

# AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	6000 ft 5961 ft s.d = 20091 ft Right	Wave/Pol.: 3 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 15.0° 15.0° 18556	CH 2 p-VH 15.0° 15.0° 18556	CH 3 p-HV 15.0° 15.0° 18556	CH 4 p-HH 15.0° 15.0° 18556
Depr Ang:	25.0°	Near Rng Dep:	18.7°	18.7°	18.7°	18.7°
Des. trk:	276.0°	Far Rng Dep:	9.9°	9.9°	9.9°	9.9°
Start Sq:	90.0°	Atten (dB):	60.0	63.0	60.0	63.0
End Sq:	90.0°	RMS Video (%FS)	7.1	8.8	5.4	9.6

### WAYPOINTS

	Latitude	] 10	ngitude	
Line_up:	N 46:39.29	W	68:04.91	Main Target: CALCS
Start:	N 46:40.59	W	68:22.23	Mocomp Point:
End:	N 46:41.63	W	68:36.69	Lat: N 46:44.29
				Long: W 68:28.98
From:	N 42:35.05	W	45:46.39	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 45:52.31	W	92:35.10	Alt: 800.0 ft

### RADAR PARAMETERS - for UVB

RTP Channel: 1 Resolution: N/A	Filter damping is Hi -> 10 sec PRF Factor is FAST (262.5 kts)
Swath width: Single	Ave Gndspd: Real -> 249.2 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	GPS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTL U2B	RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 2.2 fps: (s.d.= 4.3) Ave Fil Vel -> 3.5 fps: (s.d.= 4.1)

NML XMIT PWR X: -70.0	ANT BIAS Elevation: 0.0°		Tape Fo	Drive no.	
L: -70.0 C: -70.0 P: 46.0	Azimuth: Pitch:	0.0°	Starting: Ending:	200 ft 1446 ft	(2) (2)
Vel Bias X: 2079.0 Y: 1867.0 Z: 17142.0	CA), Atte X: 63.8 ( L: 63.8 ( C: 63.8 (	dB dB	Start:	Time (UCT) 03:24:16 03:26:58	

CPA (UCT): 00:00:00

# Mocomp Counters

			Alt:		0 ft	(GPS)
Start:	1670511	0019"D6Fh	Lat:	N	0:00:	0
End:	1697661	00191:77Dh	Lon:	E	0:00:	0